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IN THE

Supreme Court of the United States

ROBERT R. AND ELSA M. EUSTACE; NICHOLAS E. EUSTACE; ESTATE OF THOMAS A. EUSTACE, DECEASED, VICKY EUSTACE, EXECUTOR; ESTATE OF THOMAS A. EUSTACE, DECEASED, VICKY EUSTACE, INDEPENDENT ADMINISTRATOR AND VICKY EUSTACE; MICHAEL T. EUSTACE; STEVEN A. AND MICHELLE L. DYE,

Petitioners,

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. Section 41 of the Internal Revenue Code (26 U.S.C. § 41) provides a tax credit for certain research and development expenses, and qualifying expenses must meet so-called "discovery" and "process of experimentation" requirements. Should the Court grant review to provide clarity on an important question of tax law and to ensure consistent application of Section 41, given the conflict among the Seventh Circuit's opinion below, the Tenth Circuit's opinion in *Tax & Accounting Software Corp. v. United States* (pending on a petition for a writ of certiorari, No. 02-1291), the Treasury Department's regulations, and the extensive pre- and post-enactment legislative history concerning the "discovery" and "process of experimentation" requirements?

2. Is the Seventh Circuit's holding that commercial software development does not qualify for the tax credit provided by 26 U.S.C. § 41 an improper statement of the law?

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STATEMENT OF JURISDICTION

The judgment of the Court of Appeals was entered on December 13, 2002. The jurisdiction of this Court rests upon 28 U.S.C. § 1254.

STATUTORY AND PROVISIONS INVOLVED

The pertinent statutory provisions are set forth at App. 23a-31a.

STATEMENT OF THE CASE

This case concerns a research and development ("R&D") tax credit, enacted by Congress in Section 41 of the Internal Revenue Code with the express intent of inducing taxpayers to engage in specified economic activity. The issue is whether the tax credit (which Congress expressly extended to software development R&D) should be provided on clear terms, or whether taxpayers who respond to Congress's call for such R&D investment must not only incur the costs and burdens associated with research, but also run the risk of having to engage in litigation against the Commissioner to obtain the tax credit promised by Congress to incentivize and reward the desired R&D activity.

The terms on which the tax credit will be recognized are anything but clear, after the decision below and the conflicting decisions of other federal courts. There is no reason for this murkiness and conflict. The history of the Section 41 R&D tax credit provides powerful guidance on the proper terms for the credit's recognition, as discussed below. Regardless of the reason, however, conflict does exist in the judicial interpretation and implementation of the statute. Particularly when a statute

is designed to induce action on taxpayers' part, the need for clarity is great, and there is an urgent reason for this Court to grant review and provide definitive guidance, as it only just did in *Boeing Co. v. United States*, __ U.S. __ (March 4, 2003).

A. Overview of the Statute, Regulations, and Judicial Interpretation.

In the 1980s Congress faced a sluggish economic climate strikingly similar to today's. To spur research and investment in order to promote economic recovery, Congress promised a tax credit to reward R&D activity. Congress first enacted a R&D tax credit in 1981. It modified that provision in 1986, and that statute, IRC § 41, has been in effect ever since (its term having been extended repeatedly by Congress). Section 41 provides that taxpayers whose R&D activity satisfies four criteria qualify for the tax credit. In part, the legislative history sheds light on the meaning of the four criteria. In part, however, Congress relied on the Treasury Department to issue regulations to implement the statute.

The Treasury Department was slow to do so. When it finally prepared to issue "final regulations" in January 2001 (T.D. 8930, 66 Fed. Reg. 280-01), there was an outcry of criticism, and Congress took the extraordinary step (in the course of one of its extensions of the term of Section 41) of seconding the criticism, and calling for the Treasury Department to modify the regulations accordingly. Rather than withdrawing the belated regulations, the Treasury Department issued a Notice that it would review the regulations and issue any modifications in the form of additional proposed regulations. Notice 2001-19, 2001-10 I.R.B. 784. In December 2001 it did so. 66 Fed. Reg. 66362. Though it has not yet issued these proposed regulations as "final," the Treasury Department and the IRS have expressly stated that, rather than treating the regulations as strictly prospective, they will not challenge any open tax return taking a position that satisfies the proposed regulations, and that taxpayers may rely on the proposed regulations even before they are finalized. *Id.* at 66367.

The Petitioners are taxpayers who claimed Section 41 tax credits for software development activity. They were denied the credits by the Tax Court, on the ground that they failed to satisfy two of the four criteria (the "discovery" and "process of experimentation" criteria). The Seventh Circuit affirmed that denial, in an opinion that suggests commercial software development can never qualify for Section 41 tax credits, despite Congress's express intent that it can. App. 6a ("simple industrious software development does not qualify for the § 41 tax credit"). The Seventh Circuit reached that conclusion by applying tests that it frankly acknowledged conflict with the tests adopted by the Tenth Circuit. App. 4a ("The tenth circuit has disagreed with our understanding of § 41."). It also acknowledged that "neither [its] view nor the tenth circuit's has staying power," because they both "analyzed § 41 without the benefit of the regulations that are supposed to illuminate the path to decision." App. 5a. It did not acknowledge that there are any final regulations (*id.*), and refused to consider the impending regulations on the ground that they are only proposed and only prospective (*id.*), ignoring the Treasury Department's and IRS's express commitment to allow taxpayers to invoke the proposed regulations, even before they are finalized, for any open return, from any date.

By turning its back on the proposed regulations, particularly when Congress itself had joined the chorus of those who called upon the Treasury Department to promulgate them, the Seventh Circuit blinded itself to the best source of congressional intent, denied these taxpayers the benefit of tax credits to which they are entitled, and left taxpayers in general at sea about the meaning of a statute that has been unchanged since 1986. Congress cannot have intended to bait businesses into investing only to switch when they seek the credit. This Court's intervention and guidance is needed to ensure the consistent application of Section 41 to all taxpayers.

B. Legislative Background

In 1981, the federal deficit was swelling, economic growth and productivity were stagnant, and U.S. companies' ability to

compete in foreign markets was adversely affected by declines in investment research and development. In response, Congress enacted incentives for private businesses to increase expenditures for research and experimentation as part of the Economic Recovery Tax Act of 1981 (P.L. 97-34, Aug. 13, 1981, Sec. 221), which amended the Internal Revenue Code of 1954 to add a new Section 44F (now 26 U.S.C. § 41). In commenting on the R&D credit, the Senate Finance Committee specifically stated "[t]he Committee believes that the decline in this country's research and development activities has adversely affected economic growth, productivity gains, and our competitiveness in world markets." S. Rep. No. 97-144, 97th Cong., 1st Sess., at 77 (1981). *See also* H.R. Rep. No. 97-201, 97th Cong., 1st Sess., at 111 (1981). Indeed, this credit was the only business tax provision included in the 1981 Act that targeted the high technology sector's capital spending in the form of investment in research and development activities.[1]

When the R&D credit was first enacted, the computer software industry in the United States was in its infancy. By 1985, the earliest year for which statistics are available, the industry had only 55,000 employees, with total wages of $1.8 billion and average wages of $32,933, compared with the average for all workers of $18,843.[2] By 1990, total software industry employment had more than doubled (to 112,800), total wages had grown 250% (to $5.1 billion), and the average wage per employee had grown to $45,505, compared to the overall average of $23,209.[3] By 1997, total software industry

1. The Economic Recovery Tax Act of 1981 contained several other business tax incentives benefiting capital intensive businesses, such as accelerated depreciation of certain business equipment, and changes to the investment tax credit provisions to encourage certain distressed industries to modernize their plants and equipment.

2. *See The Emerging Digital Economy*, U.S. Department of Commerce, April 1998, App. I, Tables 14 and 15, Chart 16 (available at http://www.esa.doc.gov/).

3. *Id.*, at Charts 14, 15, and 16.

employment had grown to nearly 230,000 workers, with average annual wages rising to $77,422, compared to the overall average worker wage of $29,787.[4]

In addition to the tremendous growth in the number of high paying jobs, the software industry has been an increasing source of exports of U.S.-made products,[5] and has contributed greatly to U.S. economic growth and productivity gains.[6]

The software industry's contributions to economic growth, productivity, and foreign competitiveness correspond directly with Congress's goal in enacting and extending the R&D credit. These contributions have been made through the development of products that offer new functionality, *including the products developed by Petitioners in this case for which Petitioners seek to take the tax credit.*

Petitioners are shareholders of Applied Systems, Inc., a Subchapter S corporation. Applied Systems develops and markets software for use by the insurance industry. During 1990, 1991, and 1992, Applied Systems developed and further improved commercial software programs designed to automate the day-to-day functions of independent insurance agencies; developed software programs used by insurance companies for automating the managing of policies; and reengineered and enhanced the functionality of other software programs used by insurance agencies.

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4. *See The Emerging Digital Economy II*, U.S. Department of Commerce, June 1999, App. 2 Chp. IV, Table A-4.1, A-4.3.

5. *The Emerging Digital Economy II, id.*, at p. 21.

6. For example, between 1995 and 1998, information-technology-producing industries, including the software industry, contributed on average more than one-third of real economic growth. *The Emerging Digital Economy II, id.*, at p. 15. In addition, in both 1996 and 1997, declining prices in information-technology-producing industries, including the software industry, brought down overall inflation by 0.7 of a percentage point. *Id.*

After Applied Systems timely filed amended tax returns claiming the Section 41 tax credit for R&D activities, the IRS denied the credit and assessed additional taxes. Petitioners petitioned the Tax Court to redetermine the deficiencies, asserting that their activities qualified for the Section 41 tax credit.

C. The Internal Revenue Code Provisions.

The Internal Revenue Code ("IRC") allows taxpayers who increase their research activities over previous years to use a portion of those increased research expenses as a credit against income taxes otherwise due. IRC §§ 38, 41. To qualify for the credit, the research activities must meet the following four tests:

1. The Section 174 test: the expenses generated by the research must qualify as research and experimental expenditures under IRC § 174;
2. The "discovery" test: the research must be undertaken for the purpose of discovering information which is technological in nature;
3. The business component test: the information discovered by the research is intended to be useful in the development of a new or improved business component of the taxpayer; and
4. The "process of experimentation" test: substantially all of the research activities constitute elements of a process of experimentation related to a new or improved function, performance, or reliability or quality.

IRC § 41(d)(1).

The Respondent conceded that Applied Systems met the Section 174 and business component tests. It challenged Petitioners' eligibility for the credit only under the "discovery" and "process of experimentation" tests. *See* App. 2a-3a.

D. The Legislative History of the Research Credit.

Before the research credit was enacted, Congress established what became 26 U.S.C. § 174. This section allows taxpayers either to deduct research or experimental expenditures in the year incurred, or to capitalize such expenditures and amortize them over time. *See Boeing*, __ U.S. __, 2003 WL 716688, *4.

Section 174 did not specifically define the "research or experimental expenditures" eligible for deduction. The Treasury Department, however, promulgated regulations that define the term to mean "research and development costs in the experimental or laboratory sense." H.R. Rep. No. 97-201, 97th Cong., 1st Sess., *reprinted in* 1981-2 C.B. 352, 358 (hereinafter referred to as the 1981 House Report, with citations to the page numbers in the Cumulative Bulletin); Treas. Reg. § 1.174-2(a). This category of expenditures generally includes "all such costs incident to the development of an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property, and the improvement of already existing property of the type mentioned," as well as the costs of obtaining a patent on the property developed. *Id.*

In 1981, Congress for the first time enacted a substantial tax credit for businesses who increased their Section 174 research and experimental expenditures from year to year. The House of Representatives intended the credit "to stimulate a higher rate of capital formation and to increase productivity" by providing an incentive "for greater private activity in research." 1981 House Report at 358. "Qualified research expenditures" for purposes of the credit meant amounts paid:

> (A) for research for the purpose of *discovering information* which may be potentially useful either
>
> > (i) in the development of a new business item for the taxpayer or

(ii) in bringing about a significant improvement in an existing business item of the taxpayer, or

(B) in application of results obtained by research to develop a plan or design either

(i) for a new business item for the taxpayer or

(ii) for a significant improvement in an existing business item.

Id. at 359 (emphasis added). Research was further defined "to mean a planned search or critical investigation, including experimentation." To be eligible for the credit, however, "the research must be performed in a field of laboratory science (such as physics or biochemistry), engineering *or technology*." *Id.* at 360 (emphasis added).

The 1981 Senate Report summarized these definitions:

> Subject to certain exclusions,[7] the provision adopts the definition of research used in Code section 174. That is, the term "research and experimental" for purposes of new section 44F has the same meaning, subject to the specified exclusions, as has the term "research or experimental" under section 174.

S. Rep. No. 97-144, 97th Cong., 1st Sess., *reprinted in* 1981-2 C.B. 412, 441 (referred to as the 1981 Senate Report). The 1981 Conference Report confirmed that "subject to certain exclusions, the bill adopts the definition of research as used for purposes of the special deduction rules under section 174." H.R. Conf. Rep. No. 97-215, 97th Cong., 1st Sess., *reprinted in* 1981-2 C.B. 481, 495 (referred to as the 1981 Conference Report).

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7. Those exclusions are not applicable here.

In 1986 Congress clarified and modified the definition of research for purposes of the Section 41 credit. The House Committee believed that some taxpayers had claimed the credit for virtually any expense related to product development, such as post-research activities, adaptation, surveys, and studies, and many of these taxpayers were in industries that did not involve high technology, or its application in developing new or improved products. H.R. Rep. No. 99-426, 99th Cong., 1st Sess., *reprinted in* 1986-3 C.B. (Vol. 2) 1, 178 (referred to as 1986 House Report). The 1986 amendment addressed three areas:

1. Congress clarified the distinction between research expenditures and certain nonresearch activities such as post-research activities, adaptation, and surveys and studies.

2. Congress confirmed the requirement that the information discovered must be (a) technological in nature and (b) intended to result in a new or improved product.

3. Congress added the requirement that substantially all the activities involved in developing or improving the product must constitute a process of experimentation related to functional aspects of the product.

Id. at 178.

The House stated its intent with respect to its new "technological in nature" criteria:

> The determination of whether new or improved characteristics of a business item are technological in nature depends on whether the process of experimentation to develop or improve such characteristics fundamentally relies on principles of the physical or biological sciences, engineering, *or computer science* – in which case the characteristics are deemed technological . . .

Id. at 180 (emphasis added).

The House also clarified its intent with respect to its "process of experimentation" criteria:

> The concept of "process of experimentation" means a process of scientific experimentation *or engineering activities to design a business item* where *the design of the item as a whole is uncertain at the outset*, but instead must be determined by developing one or more hypotheses for specific design decisions, testing and analyzing those hypotheses (through, for example, modeling or simulation), and refining or discarding the hypotheses as part of a sequential design process to develop the overall item.

Id. at 180-81 (emphasis added). The 1986 Conference Report further explained that

> The term process of experimentation means a process involving the evaluation of more than one alternative *designed to achieve a result* where the *means of achieving that result is uncertain at the outset.*

H.R. Conf. Rep. No. 99-841, 99th Cong., 2d Sess., *reprinted in* 3 C.B. (Vol. 4), 1, 72 (referred to as the 1986 Conference Report) (reproduced at Appendix D, 32a-52a) (emphasis added).

The congressional reports describing the 1986 reenactment of the research credit establish a number of points critical to the issues before this Court. First, Congress did not identify its requirement for "discovery" of information as a modification of the original tax credit. The "discovery" requirement was established in IRC § 174, and that requirement was reaffirmed by Congress when it originally established the research credit in 1981. 1981 House Report at 360; 1981 Conference Report at 441.

Second, Congress defined and expanded upon every new or modified requirement imposed by the 1986 reenactment.

Conspicuously, no new definition or requirements were added for the "discovery" test. The legislative history is thus clear that Congress did not establish a new and heightened "discovery" test in 1986.

Further, Congress declined to establish a protocol for satisfying the "process of experimentation" test. It required only that the taxpayer show that the *methods* of achieving the design goal be uncertain at the outset, and that it evaluate more than one alternative for achieving its goal.

In 1998 Congress passed the Tax and Trade Relief Extension Act of 1998, which extended the research tax credit. At that time, Congress gave further express guidance on the "process of experimentation" test:

> Activities constitute a process of experimentation, as required for credit eligibility, if they involve evaluation of more than one alternative to achieve a result where the means of achieving the result are uncertain at the outset, *even if the taxpayer knows at the outset that it may be technically possible to achieve the result*.
>
> Thus, even though a researcher may know of a particular method of achieving an outcome, the use of the process of experimentation to effect a new or better method of achieving that outcome may be eligible for the credit (provided that the research otherwise meets the requirements of section 41, including not being excluded by subsection (d)(4)).

H.R. Conf. Rep. No. 825, 105th Cong., 2d Sess. 1998, at 3218-22 (emphasis added).

E. Treasury Regulations.

In December 1998, the Treasury Department issued proposed regulations for the research credit. 63 Fed. Reg. at 66503. In the spring of 1999, Congress received the comments from taxpayers, addressed primarily to the "discovery" and

"process of experimentation" tests. The comments criticized the regulations, both on public policy grounds and as inaccurately reflecting Congress's intent. Congress responded by joining the opposition to the proposed regulations. When it reenacted and extended the research tax credit in late 1999, Congress "urged" Treasury to act in accordance with the comments it had received to the proposed regulations:

> The conferees urge the Secretary to consider carefully the comments he has and may receive regarding the proposed regulations relating to the computation of the credit under section 41(c) and the definition of qualified research under section 41(d), particularly regarding the "common knowledge" standard.

H.R. Conf. Rep. No. 478, 106th Cong., 1st Sess. 1999.

On January 3, 2001, Treasury issued final regulations. T.D. 8930 (66 Fed. Reg. 280). The regulations reflected some deference to the recent comments of Congress and contained changes concerning the "discovery" and "process of experimentation" tests. In the preamble to the regulations, Treasury acknowledged the universal criticism that the "discovery" test from the prior proposed regulation had imposed a requirement that was not mandated by the statute. *Id.* at 281. Treasury stated:

> IRS and Treasury recognize that virtually all research utilizes existing scientific principles and technology. The requirement that a taxpayer seek to exceed, expand, or refine the common knowledge of skilled professionals does not mean that the tools and principles used in the attempt to achieve the technological advance must themselves be beyond the common knowledge.

In February 2001, Treasury announced that implementation of these "final" regulations would be postponed for further

review. "[U]pon completion of the review, Treasury and IRS will announce changes to the regulations, if any, in the form of proposed regulations." Notice 2001-19. Pursuant to the notice, however, taxpayers were permitted to rely upon the proposed regulations during the pendency of the review. *Id.*

In December 2001, Treasury announced that, after considering the statute and legislative history, court decisions, the 2001 "final" regulations, and public comments, it was proposing revised regulations. Although Treasury proposed that the revised regulations will become effective for tax years on or after December 26, 2001, "Treasury and the IRS believe that these rules prescribe the proper treatment of the expenditures they address, and the IRS will not challenge return positions consistent with the proposed regulations." 66 Fed. Reg. 66362, 66367.

The returns at issue here are consistent with the regulations. These revised regulations are intended to clarify: (1) the statutory requirement that qualified research be "undertaken for the purpose of discovering information which is technological in nature"; and (2) the statutory requirement that qualified research be research "substantially all of the activities of which constitute elements of a process of experimentation." *Id.*

1. The "Discovery" Test.

The preamble to the proposed regulations confirms that Treasury and the IRS agree that the statutory requirement that qualified research be "undertaken for the purpose of discovering information which is technological in nature" was intended to exclude only credit for non-technological research. *Id.* at 66363.

2. The "Process of Experimentation" Test.

The new regulations, consistent with the legislative history of Section 41(d), provide that a "process of experimentation" is "a process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, *or* the appropriate design of that result, is uncertain

at the beginning of the taxpayer's research activities." *Id.* at 66368 (emphasis added). *Id.* The proposed regulations suggest factors that Treasury believes tend to indicate whether the taxpayer has engaged in a "process of experimentation". The factor relevant to software development is:

> Does the taxpayer test and analyze numerous alternative hypotheses to develop a new or improved business component?

Id. at 66368-69.

F. The Lower Court Decisions.

Following a trial, the Tax Court entered its decision in favor of the IRS. The Tax Court held Petitioners did not meet the "discovery" test because "Applied Systems did not undertake research to discover information beyond the current state of knowledge in the computer science field." App. 21a. The Tax Court held Applied Systems did not meet the "process of experimentation" test because it did not "conduct a 'process of experimentation' aimed at eliminating uncertainty about the technical ability to develop the software." *Id.*

The Seventh Circuit affirmed the Tax Court's decision, finding that software development satisfies the "discovery" test "only if 'the research is intended to expand or refine existing principles of computer science' and the resulting information is 'of broad effect.'" App. 3a, *quoting United Stationers v. United States*, 163 F.3d 440, 444 (7th Cir. 1999). To satisfy the "process of experimentation" test, the taxpayer "must formulate and test hypotheses in order to dissipate uncertainty about the possibility of success, a standard that fine-tuning (or debugging) of computer programs does not satisfy." *Id.* The Seventh Circuit made it clear that under its holding commercial software developers like Applied Systems will not be eligible for the Section 41 tax credit, for it ultimately concluded that "simple industrious software development does not qualify for the § 41 tax credit." App. 6a. The court acknowledged that its

interpretation conflicted with the Tenth Circuit's interpretation in *Tax & Accounting Software*. App. 4a-5a.

REASONS FOR GRANTING THE WRIT

Today, the state of the economy and the rate of capital formation for U.S. businesses are remarkably similar to what they were in 1981. The contribution of the information technology industry, including the commercial software industry, is as important today as ever to this country's economy. Congress, through the research and development tax credit, has given the commercial software industry a powerful incentive to test and develop products that will provide the economy with needed stimulus. But the Seventh Circuit (in the second appellate-level decision to interpret and apply key provisions of the Section 41 credit to a commercial software developer) has expressly held that commercial software development does not qualify for the credit.[8] In doing so, the court ignored the statute, congressional intent (embodied in the legislative history of Section 41, including subsequent legislative history directly supporting Petitioners' position), and the Treasury Department's own newly proposed regulations (which are to apply to all open returns and which also directly support the Petitioners' position). This issue cannot await any further development in the courts below; the issue needs to be addressed by this Court to remove the uncertainty faced by those taxpayers who would undertake the R&D activities envisioned by Congress.

8. There are several reported cases concerning application of the credit for the development of internal use software. *See, e.g., Wicor, Inc. v. United States*, 263 F.3d 659 (7th Cir. 2001); *United Stationers v. United States*, 163 F.3d 440 (7th Cir. 1999); *Wicor, Inc. v. United States*, 116 F.Supp.2d 1028 (E. D. Wis. 2000); *United Stationers, Inc. v. United States*, 982 F.Supp. 1279 (N.D. Ill. 1997); *Norwest Corp. v. Commissioner*, 110 T.C. 454, 1998 WL 341634 (T.C. 1998). Congress addressed internal use software separately in the statute, and imposed additional requirements to claim the credit for research and development expenses in connection with internal use software. *See* 26 U.S.C. § 41(d)(4)(E) and regulations promulgated in accordance with that section.

Shortly before the Seventh Circuit issued its opinion, the Tenth Circuit decided *Tax & Accounting Software Corporation v. United States*, 301 F.3d 1254 (10th Cir. 2002). The plaintiffs in that case have also filed a Petition for Writ of Certiorari with this Court, which was docketed on March 5, 2003 (No. 02-1291). While both the Seventh Circuit below and the Tenth Circuit in *Tax & Accounting Software* ruled against the taxpayers, the courts applied admittedly conflicting interpretations of the "discovery" and "process of experimentation" tests of § 41. *See, e.g.*, App. 4a-5a (noting conflict with the Tenth Circuit). In addition, taxpayers residing outside the Seventh and Tenth Circuits could be held to still another formulation of the "discovery" and "process of experimentation" tests of Section 41. *See Norwest Corp. v. Commissioner*, 110 T.C. 454, 1998 WL 341634 (T.C. 1998). As a result, identically situated taxpayers located in different parts of the country will bear different tax burdens. Because of the great need for "uniform application of the Internal Revenue laws," *Turnbow v. Commissioner*, 368 U.S. 337, 339 (1961), this intolerable circumstance warrants review.

Notwithstanding the standard set forth in Treasury's new regulations, the Seventh Circuit's decision, coupled with the Tenth Circuit's decision in *Tax & Accounting Software*, has ensured that the Section 41 tax credit will be applied to the software industry at best inconsistently and at worst not at all.[9]

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9. The *Tax & Accounting Software* decision has already caused problems. *See* 10/08/02 BNA Article discussing comments by Dan Rosen, IRS Large and Mid-Size Business Division Counsel, at a panel during the Tax Executives Institute Conference in New York City. Some practitioners expressed concern that the Tenth Circuit's decision will lead IRS agents to determine the tax credit using a separate "discovery" test. According to the article, "Rosen said [the Tenth Circuit's decision] is seen by practitioners as exacerbating the already difficult issue." *Id.*

Congress cannot have intended to give a credit with one hand only to let the courts take away it away with another. This would be true even if the courts' decisions applied solely to an industry as important as commercial software. The courts' decisions, however, threaten to severely limit the Section 41 credit for all industries.

Because the Petitioners' positions here and in *Tax & Accounting Software* are supported by both the legislative history and the Treasury Department's newly proposed regulations, and because the country is faced today with the same economic challenges that prompted Congress to create the tax credit, the Court should grant review to provide needed clarity and guidance. The commercial software industry needs the R&D incentives that Congress has provided in order to ensure the industry remains a vital engine of economic growth and productivity.

I

THE SEVENTH CIRCUIT'S INTERPRETATION OF THE "DISCOVERY TEST" CONFLICTS WITH CONGRESS'S PURPOSE, THE TREASURY DEPARTMENT'S NEW PROPOSED REGULATIONS, AND THE TENTH CIRCUIT'S INTERPRETATION.

Section 41(d)(1) provides the research must be "undertaken for the purpose of discovering information." Petitioners argued below that the "discovering information" requirement has the same meaning it has for purposes of Section 174, and was intended to exclude only credit for non-technological research. Under this interpretation, Applied Systems satisfied the "discovery" test because its work relied on principles of computer science and was plainly technological in nature. Under the newly-issued Treasury Department regulations, the Petitioners would be entitled to the tax credit.

The Seventh Circuit held that the Petitioners failed to satisfy the "discovery" test, relying on *United Stationers v. United States*, 163 F.3d 440 (7th Cir. 1999), rather than the Treasury Department regulations. *United Stationers* was misguided when it was decided, but, as the court itself admitted, the decision does not have "staying power" (App. 5a) in light of Treasury's proposed regulations. Indeed, Respondent, in a brief it filed with the Seventh Circuit seeking an extension of time to respond to Petitioners' opening brief, acknowledged that the standard articulated in the new regulations, by which it is bound, "is not fully consistent with this Court's interpretation of Section 41 in *United Stationers*. . . ."

In dismissing the proposed regulations, the Seventh Circuit stated the regulations "have no legal effect" and "when final the regulations will apply only to taxable years ending on or after December 21, 2001." App. 5a. The Court recently addressed an issue concerning proposed regulations in *Boeing*. There, the Court stated, "we find these proposed regulations to be of little consequence given that they were nothing more than mere proposals. In 1972 – when regulations governing DISC's were first proposed – the Secretary made clear that the proposed regulations were suggestions only, and that whatever final regulations were ultimately adopted would govern." *Boeing*, __ U.S. __, n.13. In contrast to the proposed regulations in *Boeing*, which were never adopted, in the proposed regulations here Treasury has specifically stated:

> Treasury and the IRS believe that these rules prescribe the proper treatment of the expenditures they address, and the IRS will not challenge return positions consistent with the proposed regulations.

66 Fed. Reg. at 66367. In the eyes of the IRS, taxpayers may rely upon the proposed regulations until they become final. And the fact that the regulations state they will apply only to taxable years ending on or after December 21, 2001, is of no moment. The regulations do not replace any earlier ones, and because

the statute has not changed, it would make no sense to apply different definitions to tax returns based solely upon whether the taxable year ended before or after December 21, 2001.

Moreover, the legislative history directly supports Petitioners' position. The 1981 Senate Report summarized the definitions of Section 41, including "discovering information," as follows:

> Subject to certain exclusions, the provision adopts the definition of research used in Code § 174. That is, the term "research and experimental" for purposes of new § 44(F) has the same meaning, subject to the specified exclusions, as has the term "research or experimental" under § 174.

S. Rep. No. 97-144, 97th Cong., 1st Sess., *reprinted* in 1981-2 C.B. 412, 441. The 1981 Conference Report confirmed that "subject to certain exclusions, the bill adopts the definition of research as used for purposes of the special deduction rules under § 174." H.R. Conf. Rep. No. 97-215, 97th Cong., 1st Sess., *reprinted in* 1981-2 C.B. 481, 495. These congressional reports expressly establish that, from the beginning, the credit required the discovery of information, and the criteria for the tax credit was satisfied if the taxpayer qualified for the Section 174 deduction.

When Congress amended Section 41 in 1986, it clarified the discovering information component. In the 1986 House Report, Congress confirmed that the information discovered must be (a) technological in nature and (b) intended to result in a new or improved product. 1986 House Report at 178. The House stated:

> The determination of whether new or improved characteristics of a business item are technological in nature depends on whether the process of experimentation to develop or improve such characteristics fundamentally relies on principles of

> the physical or biological sciences, engineering, *or computer science* – in which case the characteristics are deemed technological. . . .

1986 House Report at 180 (emphasis added). *Treasury's new proposed regulations for the research and development tax credit are consistent with the Section 174 definition. See* 66 Fed. Reg. at 66363.[10]

In *Tax & Accounting Software*, the Tenth Circuit expressly rejected the Seventh Circuit's construction of the "discovery" test (that the research expand or refine principles of computer science). 301 F.3d at 1260-62. Instead, the Tenth Circuit articulated a standard distinct from the Seventh Circuit's, the legislative history, and the proposed regulations. The Tenth Circuit determined that the "discovery" test required a taxpayer to show that it discovered new information and that information must be separate from the product that is actually developed." *Id.* at 1262. The Tenth Circuit derived this interpretation from the dictionary definitions of the words "information" and "discovery," and admittedly chose the most conservative definitions of those terms, notwithstanding the significant economic stimulus Congress intended to provide through the Section 41 tax credit. *Id.* at 1261.

Review is warranted not only to settle the confusion created by the differing interpretations of the "discovery" test announced by the Seventh and Tenth Circuits, but also because both of those interpretations are inconsistent with congressional intent and the proposed Treasury Regulations, which the IRS is utilizing for all open tax returns.

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10. In the preamble to the proposed regulations, Treasury agrees that the statutory requirement that qualified research be "undertaken for the purpose of discovering information which is technological in nature" was intended only to exclude credit for non-technological research. *Id.* at 66363.

II

THE SEVENTH CIRCUIT'S INTERPRETATION OF THE "PROCESS OF EXPERIMENTATION" TEST MISCONSTRUES THE LEGISLATIVE HISTORY AND THE TREASURY REGULATIONS, RESULTING IN AN IMPROPER CONSTRUCTION OF SECTION 41.

Section 41(d)(1) provides that "substantially all" of the research "must constitute elements of a process of experimentation" for a valid purpose under the tax credit. § 41(d)(1)(C). Petitioners argued below that the "process of experimentation" means a process that involves the evaluation of more than one alternative designed to achieve a result, when the means of achieving that result are uncertain at the outset. The proposed Treasury Regulations now track the Petitioners' construction of the phrase. *See* 66 Fed. Reg. at 66364.

In contrast to the proposed regulations, the Seventh Circuit held that "the taxpayer must formulate and test hypotheses in order to dissipate uncertainty about the possibility of success, a standard that fine-tuning (or debugging) of computer programs does not satisfy." App. 3a. The court further stated that "Section 41 is about research, and thus about use of the scientific method," and equated software developers with authors, movie makers, and even shoppers parking a car:

> Authors and movie makers playing with sentences and scenes to find what most impresses the public are not doing scientific research using "experimentation." Just so with software. Developers are authors too; that they write lines of code readable by machines rather than lines of words readable by people does not fundamentally change the nature of the task and make one form of writing "experimentation" when the other is not. Experimentation is a subset of all steps taken to

> resolve uncertainty; otherwise searching for a place to park a car would be a "process of experimentation."

App. 4a. Under the Seventh Circuit's view, *software developers can never qualify for the Section 41 credit. Cf.* App. 2a (noting that "Taxpayers who have sought a credit under § 41 for commercial software development have been uniformly unsuccessful").

The Seventh Circuit's view is at odds with the very purpose of Section 41. Indeed, the court's interpretation not only conflicts with the legislative history and the proposed regulations, it goes beyond anything the IRS has ever argued. It is frankly inappropriate to equate commercial software developers' R&D efforts with the actions of authors, movie makers, and mall goers parking a car. Congress did not need to provide incentives for the latter activities in order to stimulate the economy and ensure continued economic growth. Nothing in the statute, legislative history, or regulations suggests that commercial software developers should be categorically excluded from the Section 41 tax credit. In fact, the Seventh Circuit's whimsical dismissal of commercial software developers' eligibility is refuted by Section 41's express language:

> Activities for which credit not allowed.
>
> * * *
>
> (E) Computer software. – Except to the extent provided in regulations, any research with respect to computer software which is developed by (or for the benefit of) the taxpayer primarily for internal use by the taxpayer, other than for use in –
>
> > (i) an activity which constitutes qualified research (determined with regard to this subparagraph), or

> (ii) a production process with respect to which the requirements of paragraph (i) are met.

Section 41(d)(4)(E). The statute expressly precludes a credit for the development of computer software for *internal use*. It is therefore logical that Congress intended the term "qualified research" to include research and development of computer software for non-internal use purposes, *i.e.*, in connection with *commercial* software development. *See TRW, Inc. v. Andrews*, 534 U.S. 19, 28 (2001) (Congress's express enumeration of certain exceptions to a general prohibition precludes implying additional exceptions in the absence of evidence of a contrary Legislative intent) (quoting *Andrus v. Glover Construction Co.*, 446 U.S. 608, 616-17 (1980)).[11]

The Seventh Circuit's interpretation of the "process of experimentation" test is also generally inconsistent with the Tenth Circuit's interpretation, again creating disuniformity in the application of the credit. The Seventh Circuit's requirement that there must be "uncertainty about the possibility of success" is similar to the Tenth Circuit's requirement that there be uncertainty that the end result be feasible, but neither formulation finds support in the legislative history of Section 41.

The 1986 House Report defined "process of experimentation" as:

> a process of scientific experimentation or engineering activities to design a business item ***where the design of the item as a whole is uncertain at the outset***, but instead must be determined by developing one more hypotheses for specific design decisions, testing and analyzing those hypotheses (through, for example, modeling or simulation), and

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11. *See Leatherman v. Tarrant County Narcotics Intelligence & Coordination Unit*, 507 U.S. 163, 168 (1993) (reiterating the "*expressio unius est exclusio alterius*" canon of statutory construction).

> refining or discarding the hypotheses as part of a *sequential design process to develop the overall item.*
>
> [C]osts of developing a new or improved business item are not eligible for the credit **if the method of reaching the desired objective (the new or improved product characteristics)** ***is readily discernible and applicable as of the beginning of the research activities,*** so that true experimentation in the scientific or laboratory sense would not have to be undertaken to develop, test, and choose **among viable alternatives.**

H.R. Rep. No. 99-426, at 180-81 (1986) (emphasis in italics added). The 1986 Senate Report language is substantially identical, *see* S. Rep. No. 99-313, at 696 (1986), and the 1986 Conference Report used slightly different language, *see* H.R. Conf. Rep. No. 99-841, at II-72 (stating that a process of experimentation "means a process *involving the evaluation of more than one alternative design to achieve a result where the* ***means of achieving that result*** *is uncertain at the outset")* (emphasis in italics added).

The entire focus of the 1986 legislative history concerns the *means of achieving the result*, not the end result itself, for it speaks to "the design of the item as a whole is uncertain at the outset," "the method of reaching the desired objective," and "evaluation of more than one alternative designed to achieve a result where the means of achieving that result is uncertain at the outset." There is noting in the 1986 legislative history to suggest that the taxpayer must be uncertain whether the *final result* will be technically feasible. Instead, the taxpayer must be uncertain as to *how to achieve the final result*. The Seventh Circuit's interpretation is inimical to the incentive Congress sought to give.

This Court, applying the legislative history, should hold the "process of experimentation" requirement of § 41 is met when the *means* of achieving the end result is uncertain at the

outset, not when the end result itself is uncertain. Any other outcome makes little sense. Businesses will not spend scarce research dollars to chase results they do not believe are technically possible to obtain.[12]

Moreover, subsequent legislative history in 1998 and 1999 (quoted *supra* at 11, 12) is *directly contrary* to the Seventh Circuit's interpretation of "process of experimentation," and *decisively answers the question in Petitioners' favor*. The Seventh Circuit ignored this subsequent legislative history despite this Court's prior decisions, still another reason to grant certiorari in this case.

In examining the applicability of subsequent legislative history as an aid to statutory construction, this Court has held that while the views of a subsequent Congress cannot override the unmistakable intent of the enacting one, such views are entitled to significant weight, particularly when the precise intent of the enacting Congress is obscure. *Seatrain Shipbuilding Corp. v. Shell Oil Co.*, 444 U.S. 572, 596 (1980); *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 380-81 (1969). At the very least, this Court has held that subsequent legislative history has "persuasive value." *Bell v. New Jersey and Pennsylvania*, 461 U.S. 773, 784 (1983). While this Court has stated that arguments predicated upon subsequent congressional actions must be weighed with extreme care, such arguments "should not be rejected out of hand as a source that a court may consider in the search for legislative intent." *Andres v. Shell Oil Co.*, 446 U.S. 657, 666 n.8 (1980).

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12. For example, when NASA began the space program, it must have thought it was technically feasible (*i.e.*, possible) to put a person on the moon. Under the Seventh Circuit's decision, however, if NASA conceded that it believed its goal was technically feasible, *NASA could not meet the process of experimentation requirement even though the means of achieving the end result was uncertain at the outset.* Such a result is clearly contrary to the congressional intent, expressed in the 1986 legislative history.

The Seventh Circuit ignored this relevant subsequent legislative history, though it was entitled to great weight. Scholars agree that the special nature of tax litigation — its frequency and evolving character — makes subsequent legislative history particularly relevant authority in these cases. *See* Livingston, *What's Blue & White and Not Quite as Good as a Committee Report: General Explanations and the Role of "Subsequent" Tax Legislative History*, 11 Am. J. Tax. Pol'y 91, 95-96 (1994):

> The frequency of tax legislation, and its evolutive character, are perhaps even more relevant for post-enactment history. Frequent legislation suggests that, if courts ignore subsequent expressions of congressional intent, Congress may reverse the result in the next tax bill. The "transaction costs" of ignoring congressional intent are thus particularly high in tax cases. The evolutive character of tax law suggests that new tax provisions will frequently be amendments to old ones (or existing interpretations of old ones); the line between pre- and post-enactment legislative history will thus tend to blur somewhat in tax cases.

See also Brudney, *Congressional Commentary of Judicial Interpretations of Statutes: Idle Chatter or Telling Response?*, 93 Mich. L. Rev. 1, 63-64 (1994).[13]

Review is warranted for the Court to reiterate the importance of using subsequent legislative authority to construe ambiguous statutes, particularly in tax cases.

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13. Brudney notes that courts regularly invoke more contemporary contexts to clarify or update earlier legislative understandings, including post-enactment dictionary usage, canons of construction, and agency interpretations. The same considerations that justify reliance on these sources in statutory construction likewise justify reliance on post-enactment legislative history. *Id.* at 65-66.

III

THE SEVENTH CIRCUIT ERRED IN NOT APPLYING THE TREASURY DEPARTMENT'S NEW PROPOSED REGULATIONS.

There is no question that Section 41 provides an important economic incentive. Nor is there any question that the credit should be administered consistently and efficiently. The research credit has been part of the Code for more than twenty years, and indeed, the portions of Section 41 that are at issue in this case have remained unchanged since 1986. Because the Treasury Department has delayed — literally for decades — issuing definitive regulations, taxpayers have been largely left on their own in determining the extent to which the Section 41 credit applies. The courts have also struggled with Section 41, most notably with the "discovery" test and the "process of experimentation" test described above. As a result, different tests have emerged in the Seventh Circuit and in the Tenth Circuit, as well as in the Tax Court. The Section 41 credit was designed to encourage businesses to invest in R&D — by definition, to take risks. The inconsistent, conflicting, and shifting positions of the courts and the IRS have undermined Congress's purpose. Congress did not intend to replace business risk with litigation risk.

The current proposed regulations represent the best, albeit imperfect, articulation of the standards to be applied in determining whether the "discovery" and "process of experimentation" tests have met, including by the Petitioner. Those regulations represent the synthesis of various previously "proposed" and "final" Treasury regulations. They have been tempered by the strong reactions elicited from taxpayers and tax practitioners to the Treasury's earlier efforts. Most importantly, the current proposed regulations reflect the direct "urging" of Congress to develop more flexible and practical approaches to admittedly complex concepts.

The Petitioners have refused to abandon their claims for the years in question, in large part in reliance upon the guidance contained in the proposed regulations, and, as explained below, upon the promises of both the Treasury and the IRS to generally accept tax positions claimed on tax returns that are consistent with those regulations. The Petitioners appealed to the Seventh Circuit to apply the tests set forth in the new proposed regulations as the best available guidance for resolving whether they met the "discovery" and "process of experimentation" tests.[14] Referring to the current regulations as "draft regulations" having "no legal effect," the Seventh Circuit refused to apply them. App. 5a.

After the Seventh Circuit issued its opinion, the Commissioner, who prevailed, filed a motion to amend the opinion. App. 53a-56a. In this motion, counsel for the Respondent recognized that the opinion was flawed concerning the court's characterization of the legal effect of the current proposed regulations. App. 54a. According to the Respondent, the opinion should have stated, "*for the years at issue*, the Internal Revenue Service has yet to promulgate the regulations that are important to this statutory design" rather than "the Internal Revenue Service has yet to promulgate regulations that are important to this statutory design." *Id.* This refinement was apparently urged because of IRS Notice 2001-19, 2001-10 I.R.B. 784, which announced the highly unusual development that the IRS would review the "final" regulations promulgated on December 28, 2000 and make any changes in the form of (an additional set of) proposed regulations. Those "final" regulations were issued in conjunction with Treasury Decision 8930 (T.D. 8930), which in turn stated that the regulations were generally applicable to expenditures paid or incurred on or after January 3, 2001. Notice 2001-19 provided that taxpayers generally could continue to rely on T.D. 8930 during the review of the "final" regulations.

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14. As discussed above, the Petitioner is confident that the record establishes its entitlement to the Section 41 credit under the new proposed regulations.

The Respondent also cited the December 26, 2001 (current) proposed regulations in its Motion to Amend. But the Respondent did not advise the court that the preamble to the proposed regulations state as follows: "Notwithstanding [the] proposed effective date [i.e., taxable years ending on or after December 26, 2001], Treasury and the IRS believe that these rules prescribe the proper treatment of the expenditures they address, and the IRS generally will not challenge return positions consistent with the proposed regulations." 66 Fed. Reg. at 66367. This exception to the general effective date is different from the effective date previously applicable to the "final" regulations as filed, i.e., to expenditures paid or incurred on or after January 3, 2001. The Petitioners believe that this effective date distinction was deliberate, particularly given the long and complex history of the Section 41 regulation project and the critical need that taxpayers have for guidance that they can rely upon concerning the credit.

There is no way to know when or if the regulations will be finalized. The uniform application of the federal income tax laws demands that the IRS and Treasury be held to their promise not to challenge return positions consistent with the proposed regulations. The proposed regulations should accordingly have been applied to the Petitioner for the years at issue and to all other similarly situated taxpayers attempting to demonstrate that they are entitled to the R&D credit using those tests. Neither taxpayers nor the IRS should be forced to resort to lengthy litigation in order to quantify a credit that Congress has found important enough to continue to extend.

Most recently, in *Boeing v. United States*, __ U. S. __ (2003), this Court, in dealing with research and development expenditures arising in the context of another section of the Code, reiterated its long-standing view concerning the deference that should be accorded to the Treasury's regulations. Ironically, in the appeal below, the Seventh Circuit expressly recognized that its opinion, along with the opinion of the Tenth Circuit in

Tax & Accounting Software Corp. v. United States, 301 F.3d 1254 (10th Cir. 2002), will not "in the long run" have "staying power," because each court analyzed the issues presented under Section 41 "without the benefit of the regulations that are supposed to illuminate the path to decision." The Seventh Circuit erred in failing to apply the current proposed regulations to the facts of this case.

CONCLUSION

The R&D tax credit is important to the national economy and is as important for commercial software developers today as when it was first enacted in 1981. Review is warranted to ensure that the statute will be applied uniformly and consistently to all taxpayers, as Congress intended.

Respectfully submitted,

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APPENDIX

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT DECIDED AND FILED DECEMBER 13, 2002

IN THE
UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

No. 01-4222

NICHOLAS E. EUSTACE, *et al.*,

Petitioners-Appellants,

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent-Appellee.

Appeal from the United States District Court Tax Court
Nos. 21088-96 *et al.*— **Maurice B. Foley,** *Judge.*

ARGUED NOVEMBER 7, 2002 DECIDED DECEMBER 13, 2002

Before BAUER, EASTERBROOK, and MANION, *Circuit Judges.*

EASTERBROOK, *Circuit Judge.* Applied Systems, a Subchapter S corporation, develops and sells software that independent insurance agencies use to manage their businesses. During the early 1990s Applied Systems improved its software package, and its investors (the taxpayers in this case) want to take a tax credit under 26 U.S.C. § 41 based on the amount by which Applied Systems increased its R & D expenses

during these years. Taxpayers who have sought a credit under § 41 for commercial software development have been uniformly unsuccessful. See, e.g., *Tax & Accounting Software Corp. v. United States*, 301 F.3d 1254 (10th Cir. 2002); *Wicor, Inc. v. United States*, 263 F.3d 659 (7th Cir. 2001); *United Stationers, Inc. v. United States*, 163 F.3d 440 (7th Cir. 1998); *Norwest Corp. v. CIR*, 110 T.C. 454 (1998). The only exception—on which the taxpayers in this case principally rely—is the district court's decision in *Tax & Accounting*, 111 F. Supp. 2d 1153 (N.D. Okla. 2000), which the tenth circuit reversed after they filed their brief. Applied Systems' claim is no better than the others.

The evidence at trial in the Tax Court shows that Applied Systems engaged in normal software development. During the early 1990s it enhanced its software package so that it could handle additional ratings computations, so that it could handle transactions between insurers and agencies, so that multiple people could work on the same customer file simultaneously without corrupting or overwriting each others' changes, and so that more functions could be handled in a given amount of random access memory. It discarded a word processing module licensed from another vendor, replacing it with a simple text editor with reduced memory demands but good form-letter-generation features. These are not the only changes, but they show the character of the work. None of it was pioneering; all of it entailed variations on themes long used by other developers. The Commissioner conceded that this work met many of the requirements in § 41 but contested several others, of which only two require attention: that the research be "undertaken for the purpose of discovering information which is technological in nature"

(§ 41(d)(1)(B)(i)), and that the activities "constitute elements of a process of experimentation" (§ 41(d)(1)(C)). The Tax Court concluded that Applied Systems flunked both tests—the former because it did not produce an "innovation in underlying principle" and the latter because the research in question was not designed to dispel uncertainty about the technological possibility of developing software of this kind. T.C. Memo 2001-66 (2001).

Taxpayers concede that if § 41 means what the Tax Court thought, then they lose. Applied Systems has not tried to show that its software embodies any leap in information technology or that there was any doubt about the technological ability to produce software of this kind. But it contends that § 41 does not set so high a standard and that industrious development of software through a process of trial and error meets the statutory standard. The difficulty with this position is that the Tax Court did not get its legal views out of thin air. This court announced them in *United Stationers*, and *Wicor* declined an opportunity to revisit the subject. *United Stationers* held that software development satisfies the statutory technological-information requirement only if "the research is intended to expand or refine existing principles of computer science" and the resulting information is "of broad effect" (163 F.3d at 444). As for experimentation, we held that the taxpayer must formulate and test hypotheses in order to dissipate uncertainty about the possibility of success, a standard that fine-tuning (or debugging) of computer programs does not satisfy. *Id.* at 445-46.

Although the word "experiment" has many shadings in common speech, we held that as used in § 41 it has the

scientific sense of forming and testing hypotheses rather than the lay (or even engineering) sense of trial and error. Galileo engaged in experiments about acceleration when he rolled balls down an inclined plane. An auto manufacturer trying different nozzles from those on hand to find the one that applies the smoothest coat of paint is not engaged in "experimentation" under this view, nor is a software developer trying different methods to implement a feature accompanied by maximum execution speed and minimum demand on system resources such as RAM. Tinkering differs from experimentation in the vocabulary of research—and § 41 is about research, and thus about use of the scientific method. Authors and movie makers playing with sentences and scenes to find what most impresses the public are not doing scientific research using "experimentation". Just so with software. Developers are authors too; that they write lines of code readable by machines rather than lines of words readable by people does not fundamentally change the nature of the task and make one form of writing "experimentation" when the other is not. Experimentation is a subset of all steps taken to resolve uncertainty; otherwise searching for a place to park a car would be a "process of experimentation".

The tenth circuit has disagreed with our understanding of § 41. It held in *Tax & Accounting Software* that the technological-information requirement can be satisfied by new knowledge that is less a step forward than *United Stationers* required—but that "information must be separate from the product that is actually developed." 301 F.3d at 1262. With respect to experimentation, the tenth circuit was not receptive to the idea that only hypothesis formulation and testing fits, but it still held that the taxpayer must

establish that testing was designed to overcome uncertainty about whether the desired end result was technologically feasible. *Id.* at 1264-68. Applied Systems cannot meet these definitions any more than those in *United Stationers*.

In the long run, neither our view nor the tenth circuit's has staying power. Both *United Stationers* and *Tax & Accounting Software* analyzed § 41 without the benefit of the regulations that are supposed to illuminate the path to decision. Section 41's predecessor was enacted in 1981, and § 41 has been on the books in its current form since 1986, but the Internal Revenue Service has yet to promulgate the regulations that are important to this statutory design. (Section 41 refers ten times to regulations that the Secretary of the Treasury is to develop and issue.) The most recent draft was published almost a year ago, 66 Fed. Reg. 66,362 (Dec. 26, 2001), and has not been made final. Applied Systems asks us to discard the approach of *United Stationers* and use the one found in the draft regulations. That would not be sound, for two reasons: first, proposed regulations have no legal effect; second, the draft says that when final the regulations will apply only to taxable years ending on or after December 21, 2001. So Applied Systems gets no solace from this source even if the regulatory approach would favor its position (which we doubt, given that the regulations essentially track *United Stationers*' definition of "experimentation" as use of the scientific method).

One other line of argument requires only brief mention. Applied Systems thinks that we should disregard *Wicor* and *United Stationers* on the ground that the credit sought by those taxpayers was covered by § 41(d)(4)(E), which

disqualifies the costs of internal-use software except to the extent allowed by (nonexistent) regulations. In both *Wicor* and *United Stationers* the taxpayer contracted with a consulting firm to develop software that the taxpayer would use in its own business, while Applied Systems developed software for sale to customers. Yet § 41(d)(4)(E) has nothing to do with the definitions in § 41(d)(1), and *Wicor* stopped there. *United Stationers* held that the taxpayer lost under both § 41(d)(1) and § 41(d)(4)(E). That an opinion contains multiple grounds of decision does not justify disregarding any of them; it would be no more sound to throw out *United Stationers*' interpretation of § 41(d)(1) than to disregard its interpretation of § 41(d)(4)(E) (which was that contracting-out the development of software for in-house use fits within the § 41(d)(4)(E) disqualification). Sections 41(d)(1) and (d)(4) are independent rules, which deserve, and have received, independent constructions.

Whether we apply the definitions articulated in *United Stationers* or the competing interpretation from *Tax & Accounting Software,* simple industrious software development does not qualify for the § 41 tax credit. Accordingly, the judgment of the Tax Court is

AFFIRMED.

A true Copy:

Teste:

_____

Clerk of the United States Court of Appeals for the Seventh Circuit

APPENDIX B — MEMORANDUM FINDINGS OF FACT AND OPINION OF THE UNITED STATES TAX COURT DATED AND FILED MARCH 20, 2001

T.C. Memo. 2001-66

UNITED STATES TAX COURT

NICHOLAS E. EUSTACE, et al.,[1]

Petitioners

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent

Docket Nos. 21088-96, 21149-96, 21150-96, 21167-96, 21168-96, 21177-96, 21400-96.

Filed March 20, 2001.

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1. Cases of the following petitioners are consolidated herewith: Estate of Thomas A. Eustace, Deceased, Vicky Eustace, Executor, docket Nos. 21149-96 and 21177-96; Estate of Thomas A. Eustace, Deceased, Vicky Eustace, Independent Administrator and Vicky Eustace, docket No. 21150-96; Michael T. Eustace, docket No. 21167-96; Steven A. and Michelle L. Dye, docket No. 21168-96; and Robert R. and Elsa M. Eustace, docket No. 21400-96.

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Gary J. Fernandez and *Mark A. Camasta*, for petitioners.

William T. Derick and *Catherine M. Thayer*, for respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

FOLEY, *Judge*: By notices dated July 2, 1996, respondent determined deficiencies and additions to petitioners' Federal income taxes as follows:

Nicholas Eustace, docket No. 21088-96

Year	Deficiency
1992	$3,239

Estate of Thomas A. Eustace, Deceased, Vicky Eustace, Executor, docket Nos. 21149-96 and 21177-96

Year	Deficiency	Sec. 6662(a) Addition
1990	$71,505	$14,301
1991	588	—

Estate of Thomas A. Eustace, Deceased, Vicky Eustace, Independent Administrator and Vicky Eustace, docket No. 21150-96

Year	Deficiency
1991	$721

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Michael T. Eustace, docket No. 21167-96

Year	Deficiency
1992	$3,346

Steven A. and Michelle L. Dye, docket No. 21168-96

Year	Deficiency	Sec. 6662(a) Addition
1992	$3,388	$147

Robert R. and Elsa M. Eustace, docket No. 21400-96

Year	Deficiency	Sec. 6662(a) Addition
1990	$219,475	$43,895
1991	44,685	7,850
1992	207,428	41,486

Unless otherwise indicated, all section references are to the Internal Revenue Code for the years in issue, and all Rule references are to the Tax Court Rules of Practice and Procedure. After concessions, the issue is whether petitioners are entitled to the section 41 research credit.

FINDINGS OF FACT

When the petitions were filed, each petitioner or petitioner's representative resided in Illinois or Indiana. Petitioners were the shareholders of Applied Systems, Inc.

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(Applied Systems), an S corporation founded, in 1980, to produce computer software for independent insurance agencies.

Applied Systems had five departments: Programming (i.e., product development), customer services, sales, marketing, and operations. The programming department had four groups, each headed by a vice president: The Agency Manager (TAM), Forms/Interface Module (FIM), rating module, and advanced engineering. Of Applied Systems' 450 employees, 26 worked on the TAM module, 25 on FIM, and 131 on the rating module. Petitioners claim that Applied Systems paid its employees $2,139,888, $2,363,089, and $3,694,097 of wages relating to the research credit during 1990, 1991, and 1992, respectively.

Applied Systems produced software for processing client and insurance policy information, invoices, insurance claims, standard insurance forms, word processing, marketing, and accounting. Some of the software calculated premiums (i.e., rated policies) and transmitted data between independent agencies and insurance companies (i.e., carriers).

I. *TAM*

In 1983, Applied Systems released the first version of TAM, a program designed to automate the day-to-day functions of independent agencies. Applied Systems sold TAM directly to such agencies. TAM consisted of three modules: The TAM module, FIM, and First Rate (i.e ., rating module). During the years in issue, Applied Systems sold the TAM and FIM modules together as one product and sold

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First Rate separately. The software ran on IBM-compatible personal computers (PC's) and local area networks (LAN's).

A. *TAM Module*

Applied Systems released the first version (i.e., series) of the TAM module in 1983 and the second and third series by 1989. The TAM module enabled an agency to search for prospective clients whose data matched certain criteria, draft personalized sales letters, generate followup reports, dial telephone numbers, track appointments, access First Rate (i.e., to calculate premiums), access FIM (i.e., to fill out forms), process insurance applications, track policy issuance, enter changes and claims, run marketing analysis reports, and process renewals.

In January 1990, Applied Systems released TAM4.0 for a beta-test (i.e., during which agencies used the software in a working environment to identify problems not discovered during in-house testing). In September 1990, Applied Systems began to develop TAM4.1, a series for large agencies. In 1991, Applied Systems beta-tested TAM4.1. Throughout 1992, Applied Systems debugged TAM 4.1 and worked on TAM 5.0. In October 1992, Applied Systems decided to make TAM4.1 its main product and adjust it for small agencies by deactivating certain features.

Applied Systems made 190 modifications to the TAM module in converting Series 4.0 to 5.0. During the years in issue, the modifications to the TAM module included the following.

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1. *Rounding Numbers*

Applied Systems' clients identified rounding errors in the calculation of money amounts. Programmers traced the errors to extra decimal places in the compiler program.

2. *Locking Transactions*

Applied Systems programmed the TAM module for "locking" (i.e., allowing more than one user at a time to conduct transactions with a particular file).

3. *Expanding Representation*

Programmers expanded the representation on each byte of memory from 9 to 32 objects (e.g., agencies, branches, or departments), increasing the software's ability to satisfy the needs of larger client agencies.

4. *Managing Memory*

Programmers, using software purchased from a third-party vendor, increased the memory available to run the TAM module by transferring some memory contents to disk.

5. *Multitasking*

Programmers, using software purchased from a third-party vendor, implemented a function, called "Big Interrupt", that allowed users to perform multiple tasks at one time.

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6. *Indexing*

Programmers, using software purchased from a third-party vendor, developed indexes to locate data in data bases.

B. *FIM Module*

In 1986, Applied Systems released the first series of FIM. FIM used Agency/Company Organization for Research and Development (ACORD), (i.e., an insurance industry association) standards to print forms and transmit data to carriers. FIM automatically inserted into a form any relevant data from existing client and policy data bases. FIM enabled an agency to send (i.e., upload) forms, and the data thereon, to carriers through an electronic interface. FIM supported single-entry multicompany interface (SEMCI), which allowed an agency to enter data only once and send it to multiple carriers. By 1989, FIM could also receive (i.e., download) data, such as insurance policies. During the years in issue, Applied Systems integrated FIM with the TAM module by structuring data bases, configuring data, and formatting data and characters for printing. Applied Systems made 55 modifications to FIM in converting Series 4.0 to 5.0.

C. *First Rate Module*

Prior to the years in issue, the rating module enabled agents to rate personal insurance policies in a dozen States. In late 1988, Applied Systems purchased Alpha Touch, a rating vendor based in Bloomington, Minnesota. Alpha Touch had software that could calculate premiums relating to

personal insurance written in the Midwestern States. Applied Systems used the Alpha Touch software to expand First Rate, enabling the module to calculate premiums relating to more carriers, all 50 States, and commercial, as well as personal, insurance.

During the years in issue, Applied Systems' employees created programs applicable to carriers not already included in First Rate. The employees referred to State regulations and carrier manuals to determine the required data elements and the rating formulas. At the end of 1990, Applied Systems began work on rating programs applicable to commercial insurance. Commercial insurance rating involved more types of insurance coverage than personal insurance. From 1990 through 1992, Applied Systems created approximately 3,000 programs. Applied Systems regularly updated each program to reflect rating formula modifications each carrier made at least once a year.

D. *Other Projects*

During the years in issue, Applied Systems also worked on data conversion, Independence, WinTAM, Diamond, and evaluations/R & D.

1. *Data Conversion*

From 1990 through 1992, Applied Systems offered an electronic data conversion service to agencies switching from another automation system to the TAM module. This service allowed agencies to use the data from their old systems without manually reentering the data into the TAM module.

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In a typical data conversion, Applied Systems would take the data off the old system, put it on a PC, create a program to transfer the data to data base files needed for the TAM module, and run the program to transfer the data. In an average week, Applied Systems was converting, in 1990, four systems; in 1991, seven systems; and in 1992, nine systems.

2. *Independence*

In 1991, Applied Systems purchased Liberty and Leader Systems (i.e., automation vendors that were subsidiaries of carriers) and began the Independence project to integrate the software of these systems with FIM. As a result of the acquisition, Applied Systems added to its user base the customers of Liberty and Leader, based in Georgia and Indiana, respectively. These new customers could convert to the TAM module or retain their existing software, which required integration with FIM. The computer language of Liberty and Leader (i .e., COBOL) was different from that of FIM (i.e., C). Independence involved figuring out how to run FIM with, and pass data to and from, the acquired systems.

3. *WinTAM*

In 1992, one of Applied Systems' competitors announced that it would release a Microsoft Windows version of its software by the year's end. In response, Applied Systems formed a group of employees to develop a version of the TAM module for use in the Windows environment (i.e., WinTAM). Applied Systems decided to keep the TAM module in the old Disk Operating System (DOS)

environment, but put it in a Windows format. This decision allowed Applied Systems to bring a Windows version to market before completing the product development. In September 1992, Applied Systems demonstrated an early version of WinTAM at an annual insurance industry convention.

4. *Diamond*

In the latter part of 1992, Applied Systems started to design an automation system, called Diamond, to serve large carriers (i.e., while the TAM module served independent agencies). Diamond would manage and update policies to reflect customer transactions.

5. *Evaluations/R & D*

Applied Systems' evaluations/R & D work consisted of evaluating and developing, by the creation of short routines, compatibility between TAM and third-party hardware and software products.

II. *Credit Claimed*

On its 1990, 1991, and 1992 tax returns (i.e., Forms 1120S, U.S. Income Tax Returns for an S Corporation), Applied Systems did not claim any research credit. On December 30, 1993, Applied Systems hired a new tax manager, who determined that Applied Systems should claim research credits relating to the years in issue. The tax manager interviewed employees and delineated the employees and activities that he believed qualified for the research credit.

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On June 24, 1994, and August 30, 1995, Applied Systems submitted amended returns, relating to the 3 years in issue, to claim the respective research credit "that was erroneously omitted from the original filing of the Form 1120S." On the amended returns, Applied Systems claimed research credits of $235,536, $127,426, and $289,449, relating to the wages of 227 employees in 1990, 1991, and 1992, respectively. Petitioners, pursuant to amended pleadings filed in April 1997, added the wages of 21 employees (i.e., $635,371) to their claim.

OPINION

I. *Definition of Qualified Research*

Pursuant to section 41(d)(1), "qualified research" must meet, in pertinent part, the discovery and process of experimentation tests.

A. *The Discovery Test*

Qualified research must be undertaken for the purpose of discovering information which is technological in nature. Sec. 41(d)(1)(B)(i). In this case, "qualified research" is research that is undertaken to discover information that goes beyond the current state of knowledge in the computer science field. Sec. 41(d)(1)(B); *United Stationers, Inc. v. United States*, 163 F.3d 440, 444 (7th Cir. 1998); *Norwest Corp. v.* Commissioner, 110 T.C. 454, 493 (1998). In the context of section 41(d)(1)(B)(i), "discovery demands something more than mere superficial newness; it connotes innovation in underlying principle." *United Stationers, Inc. v. United States*, *supra* at 444.

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B. *The Process of Experimentation Test*

Substantially all of the activities of qualified research must constitute elements of a process of experimentation for a purpose that relates to a new or improved function, performance, reliability or quality. Sec. 41(d)(1)(C), (d)(3)(A). In section 41(d)(1)(C), "substantially all" means at least 80 percent of the activities that constitute a process of experimentation. *Norwest Corp. v. Commissioner*, *supra* at 497; sec. 1.41- 2(d)(2), Income Tax Regs. A "process of experimentation involves something more than simply debugging a computer program." *United Stationers, Inc. v. United States*, *supra* at 445. In this case, "qualified research" consists of activities at least 80 percent of which constitute a process of experimentation aimed at eliminating uncertainty about the technical ability to develop software. See sec. 41(d)(1)(C); *Norwest Corp. v. Commissioner*, *supra* at 496-497; sec. 1.41-2(d)(2), Income Tax Regs.

II. *Parties' Contentions*

Respondent contends that Applied Systems did not conduct "qualified research" because its employees did not undertake research to discover information that is technological in nature, and substantially all of the employees' research activities did not constitute elements of a process of experimentation. Petitioners contend that the section 41(d) definition of "qualified research" requires "only that there be significant programming changes to software". Petitioners further contend that Applied Systems' work meets the requirements of the discovery test, because "All computer programming relies on computer science principals [sic]",

and the process of experimentation test, because employees did "consider alternatives when adding additional functionality to the Petitioner's [sic] computer programs."

III. *Analysis*

We note at the outset that petitioners' reconstruction of qualifying expenses was unreliable, inaccurate, incomplete, and wholly insufficient to establish what various workers did and whether such expenses qualify for the research credit. In addition, petitioners failed to have their computer expert address technical issues relevant to the case, and, as noted below, the testimony of petitioners' witnesses further supports our conclusion that work performed by Applied Systems' employees, during the years in issue, does not qualify for the research credit.

A. *TAM*

Most of the product development of the TAM module occurred during 1980 through 1989. In describing a "sophisticated approach" that Applied Systems had "invented" and used in the TAM module, petitioners' programmer testified: "This would have been in the '80s." During the years in issue, employees merely updated the TAM module. Solutions to problems of rounding numbers, locking transactions, and expanding representation were commonly known in the computer science field and did not present significant programming challenges. Applied Systems' purchase and use of third-party software to facilitate managing memory, multitasking, and indexing tasks indicates that these techniques were also known in the computer

science field. Petitioners' programmer testified that he "could immediately know whether something could be made to work or whether it just wouldn't work."

Applied Systems' employees performed the following tasks relating to FIM: Establishing the capability to display business forms, enter data into their blank fields, integrate the data with a data base, and print standard forms. All these tasks were feasible before 1990. Similarly, employees working on First Rate converted State regulations and carrier formulas into programs. This task is part of the normal skilled practice of software development and does not advance or refine any principles of computer science. Petitioners' computer expert testified, relating to the expansion of the rating module: "It's hard for me to think about writing each of those programs as constituting research." Applied Systems' vice president in charge of First Rate testified: "Really from 1990 to '92 there were minor enhancements, modifications to make things easier. There weren't a lot of major changes."

In essence, these tasks did not go beyond the current state of knowledge in the computer science field and did not involve a process of experimentation.

B. *Other Projects*

Petitioners contend that work on data conversion, Independence, WinTAM, and Diamond qualifies for the research credit. We disagree. Data conversion is commonly provided by software vendors. There was no technical uncertainty, for example, that a COBOL program could be rewritten in C, and, by 1990, the principles for converting

software from DOS to Windows had been published. Petitioners' programmer testified that, during the years in issue, Applied Systems did not fundamentally convert the TAM module from DOS, but, as "a simple plan we could do fast", merely put the TAM module in a Windows format, so "we could start demonstrating something under Windows more quickly". Applied Systems' vice president testified, relating to Diamond, that employees were "trying to figure out what the product was supposed to do", but "weren't doing any coding" (i.e., programming), during the years in issue. Petitioners presented insufficient evidence relating to evaluations/R & D and failed to address this issue on brief.

IV. *Conclusion*

Petitioners fell woefully short of presenting sufficient evidence to establish, as required by section 41, that Applied Systems' activities met the requirements for the research credit. Applied Systems did not undertake research to discover information beyond the current state of knowledge in the computer science field. Nor did Applied Systems conduct a process of experimentation aimed at eliminating uncertainty about the technical ability to develop the software.

Although the TAM module, FIM, First Rate, Diamond, etc. do not meet the requirements of section 41(d)(1), the research credit may, nevertheless, be applicable to the most significant set of elements of these products in relation to which all the requirements are met. See H. Conf. Rept. 99-841 (Vol.II), at II-72 to II-73 (1986), 1986-3 C.B. (Vol.4) 1, 72-73. Petitioners acknowledge that they do not have

> the substantiation necessary to tie salaries to activities at the subcomponent level, * * *. However, the *Cohen* [sic] rule would apply in this circumstance, and the Court would be required to make a reasonable allocation of salaries to functionality.

The rule of *Cohan v. Commissioner*, 39 F.2d 540, 544 (2d Cir. 1930), does not require the Court, in this case, to make such an allocation, and we decline to do so. Accordingly, respondent's determinations are sustained.

Contentions we have not addressed are moot, irrelevant, or meritless.

To reflect the foregoing,

Decisions will be entered under Rule 155.

APPENDIX C — RELEVANT STATUTES

26 U.S.C.A. § 41

§ 41. Credit for increasing research activities

* * *

(d) Qualified research defined.—For purposes of this section—

(1) In general.—The term "qualified research" means research—

(A) with respect to which expenditures may be treated as expenses under section 174,

(B) which is undertaken for the purpose of discovering information—

(i) which is technological in nature, and

(ii) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer, and

(C) substantially all of the activities of which constitute elements of a process of experimentation for a purpose described in paragraph (3).

Such term does not include any activity described in paragraph (4).

(2) Tests to be applied separately to each business component.—For purposes of this subsection—

(A) In general.—Paragraph (1) shall be applied separately with respect to each business component of the taxpayer.

(B) Business component defined.—The term "business component" means any product, process, computer software, technique, formula, or invention which is to be—

(i) held for sale, lease, or license, or

(ii) used by the taxpayer in a trade or business of the taxpayer.

(C) Special rule for production processes.—Any plant process, machinery, or technique for commercial production of a business component shall be treated as a separate business component (and not as part of the business component being produced).

(3) Purposes for which research may qualify for credit.—For purposes of paragraph (1)(C)—

(A) In general.—Research shall be treated as conducted for a purpose described in this paragraph if it relates to—

(i) a new or improved function,

(ii) performance, or

(iii) reliability or quality.

(B) Certain purposes not qualified.—Research shall in no event be treated as conducted for a purpose described in this paragraph if it relates to style, taste, cosmetic, or seasonal design factors.

(4) Activities for which credit not allowed.—The term "qualified research" shall not include any of the following:

(A) Research after commercial production.—Any research conducted after the beginning of commercial production of the business component.

(B) Adaptation of existing business components.—Any research related to the adaptation of an existing business component to a particular customer's requirement or need.

(C) Duplication of existing business component.—Any research related to the reproduction of an existing business component (in whole or in part)

from a physical examination of the business component itself or from plans, blueprints, detailed specifications, or publicly available information with respect to such business component.

(D) Surveys, studies, etc.—Any—

(i) efficiency survey,

(ii) activity relating to management function or technique,

(iii) market research, testing, or development (including advertising or promotions),

(iv) routine data collection, or

(v) routine or ordinary testing or inspection for quality control.

(E) Computer software.—Except to the extent provided in regulations, any research with respect to computer software which is developed by (or for the benefit of) the taxpayer primarily for internal use by the taxpayer, other than for use in—

(i) an activity which constitutes qualified research (determined with regard to this subparagraph), or

(ii) a production process with respect to which the requirements of paragraph (1) are met.

(F) Foreign research.—Any research conducted outside the United States, the Commonwealth of Puerto Rico, or any possession of the United States.

(G) Social sciences, etc.—Any research in the social sciences, arts, or humanities.

(H) Funded research.—Any research to the extent funded by any grant, contract, or otherwise by another person (or governmental entity).

* * * *

Appendix C

26 U.S.C.A. § 174

§ 174. Research and experimental expenditures

(a) Treatment as expenses.—

(1) In general.—A taxpayer may treat research or experimental expenditures which are paid or incurred by him during the taxable year in connection with his trade or business as expenses which are not chargeable to capital account. The expenditures so treated shall be allowed as a deduction.

(2) When method may be adopted.—

(A) Without consent.—A taxpayer may, without the consent of the Secretary, adopt the method provided in this subsection for his first taxable year—

(i) which begins after December 31, 1953, and ends after August 16, 1954, and

(ii) for which expenditures described in paragraph (1) are paid or incurred.

(B) With consent.—A taxpayer may, with the consent of the Secretary, adopt at any time the method provided in this subsection.

Appendix C

(3) Scope.—The method adopted under this subsection shall apply to all expenditures described in paragraph (1). The method adopted shall be adhered to in computing taxable income for the taxable year and for all subsequent taxable years unless, with the approval of the Secretary, a change to a different method is authorized with respect to part or all of such expenditures.

(b) Amortization of certain research and experimental expenditures.—

(1) In general.—At the election of the taxpayer, made in accordance with regulations prescribed by the Secretary, research or experimental expenditures which are—

(A) paid or incurred by the taxpayer in connection with his trade or business,

(B) not treated as expenses under subsection (a), and

(C) chargeable to capital account but not chargeable to property of a character which is subject to the allowance under section 167 (relating to allowance for depreciation, etc.) or section 611 (relating to allowance for depletion), may be treated as deferred expenses. In computing taxable income, such deferred expenses shall be allowed as a

deduction ratably over such period of not less than 60 months as may be selected by the taxpayer (beginning with the month in which the taxpayer first realizes benefits from such expenditures). Such deferred expenses are expenditures properly chargeable to capital account for purposes of section 1016(a)(1) (relating to adjustments to basis of property).

(2) Time for and scope of election.—The election provided by paragraph (1) may be made for any taxable year beginning after December 31, 1953, but only if made not later than the time prescribed by law for filing the return for such taxable year (including extensions thereof). The method so elected, and the period selected by the taxpayer, shall be adhered to in computing taxable income for the taxable year for which the election is made and for all subsequent taxable years unless, with the approval of the Secretary, a change to a different method (or to a different period) is authorized with respect to part or all of such expenditures. The election shall not apply to any expenditure paid or incurred during any taxable year before the taxable year for which the taxpayer makes the election.

(c) Land and other property.—This section shall not apply to any expenditure for the acquisition or improvement of land, or for the acquisition or improvement of property to be used

in connection with the research or experimentation and of a character which is subject to the allowance under section 167 (relating to allowance for depreciation, etc.) or section 611 (relating to allowance for depletion); but for purposes of this section allowances under section 167, and allowances under section 611, shall be considered as expenditures.

(d) Exploration expenditures.—This section shall not apply to any expenditure paid or incurred for the purpose of ascertaining the existence, location, extent, or quality of any deposit of ore or other mineral (including oil and gas).

(e) Only reasonable research expenditures eligible.—This section shall apply to a research or experimental expenditure only to the extent that the amount thereof is reasonable under the circumstances.

(f) Cross references.—

(1) For adjustments to basis of property for amounts allowed as deductions as deferred expenses under subsection (b), see section 1016(a)(14).

(2) For election of 10-year amortization of expenditures allowable as a deduction under subsection (a), see section 59(e).

APPENDIX D — HOUSE BILL CONFERENCE REPORT NO. 99-841

House Bill

* * *

a. Expiration date

The House bill extends the research tax credit for an additional three years (i.e., for expenditures through December 31, 1988), with modifications.

b. Rate

The rate of the credit is reduced from 25 percent to 20 percent.

c. Research definition

The committee report on the House bill clarifies that the credit does not apply to expenditures for certain nonresearch activities (activities occurring after the beginning of production; adaptation of an existing product; and studies and surveys). In addition, the report modifies the definition of credit-eligible research (effective for taxable years beginning after 1985) to target the credit to research undertaken to discover information that is technological in nature and that pertains to functional aspects of products.

d. Qualified expenditures

The House bill generally repeals the present-law provision under which rental or other payments for the right to use personal

property in conducting qualified research are eligible for the credit. However, under regulations prescribed by the Treasury, payments to persons other than the taxpayer for the right to use (time-sharing) a computer in the conduct of a qualified research will remain eligible for the incremental research credit to the extent allowable under present law.

e. University basic research credit

Under the House bill, a 20-percent tax credit applies to the *excess* of (1) 100 percent of corporate cash expenditures (including grants or contributions) paid for university basic research *over* (2) the sum of (a) the greater of two fixed research floors plus (b) an amount reflecting any decrease in nonresearch giving to universities by the corporation as compared to such giving during a fixed base period, as adjusted for inflation.[1]

The amount of credit-eligible basic research expenditures to which the new university basic research credit applies does not enter into the computation of the incremental credit. The remaining amount of credit-eligible basic research expenditures—i.e., the amount to which the new credit does not apply—enters into the incremental credit computation (and in subsequent years enters into the base period amounts for purposes of computing the incremental credit).

---

1. The House bill provides a single research credit amount, consisting of a 20-percent incremental component and a 20-percent university basic research component. For convenience, this document generally refers to these components as the incremental research credit and the university basic research credit.

Appendix D

f. Credit use limitation

The House bill makes the credit subject to the general limitation on business credits, as amended by the bill (see II. B., above).

g. Effective date

These provisions are effective for taxable years beginning after December 31, 1985.

Senate Amendment

a. Expiration date

The Senate amendment extends the research tax credit for an additional four years (i.e., for expenditures through December 31, 1989), with modifications.

b. Rate

No provision (i.e., the rate of the incremental credit remains at 25 percent).

c. Research definition

The Senate amendment adopts the same general approach as under the House bill, except that the principal definitional rules (effective for taxable years beginning after 1985) are set forth in statutory language. Thus, the credit is targeted to research undertaken to discover information that is

technological in nature and that pertains to functional aspects of products. Also, the Senate amendment expands the present-law statutory list of credit exclusions to include expenditures for the types of nonresearch activities excluded under the language of the House committee report.

d. Qualified expenditures

No provision (i.e., rental or other payments for research use of laboratory equipment, computers, or other personal property remain eligible for the incremental credit).

e. University basic research credit

The Senate amendment is the same as the House bill.

f. Credit use limitation

The Senate amendment is the same as the House bill.

g. Effective date

The provision extending the credit applies to taxable years ending after December 31, 1985. The provisions relating to the research definition, university basic research credit, and the credit use limitation apply for taxable years beginning after December 31, 1985.

Appendix D

Conference Agreement

a. Expiration date

The conference agreement follows the House bill; i.e., the research credit is extended for an additional three years, with modifications.

b. Rate

The conference agreement follows the House bill; i.e., the rate of the research credit is reduced to 20 percent.

c. Research definition

The conference agreement generally follows the approach of the House bill and the Senate amendment, with statutory provisions as to the definition of qualified research for purposes of the credit, as follows.

In general

As under present law, the conference agreement limits research expenditures eligible for the incremental credit to "research or experimental expenditures" eligible for expensing under section 174. Thus, for example, the credit is not available for (1) expenditures other than "research and development costs in the experimental or laboratory sense," (2) expenditures "such as those for the ordinary testing or inspection of materials or products for quality control or those for efficiency surveys, management studies, consumer surveys, advertising, or

promotions," (3) costs of acquiring another person's patent, model, production, or process, or (4) research expenditures incurred in connection with literary, historical, or similar projects (Treas. Reg. sec. 1.174-2(a)).[2] The term research includes basic research.

Under the conference agreement, research satisfying the section 174 expensing definition is eligible for the credit only if the research is undertaken for the purpose of discovering information (a) that is technological in nature, and also (b) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer. In addition, such research is eligible for the credit only if substantially all of the activities of the research constitute elements of a process of experimentation for a functional purpose. The conference agreement also expressly sets forth exclusions from eligibility for the credit for certain research activities that might otherwise qualify and for certain nonresearch activities.

Technological nature

The determination of whether the research is undertaken for the purpose of discovering information that is technological in nature depends on whether the process of experimentation utilized in the research fundamentally relies on principles of the physical or biological sciences,

2. Section 174 also excludes from eligibility for expensing (1) expenditures for the acquisition or improvement of depreciable property, or land, to be used in connection with research, and (2) expenditures to ascertain the existence, location, extent, or quality of mineral deposits, including oil and gas.

engineering, or computer science[3]—in which case the information is deemed technological in nature—or on other principles, such as those of economics—in which case the information is not to be treated as technological in nature. For example, information relating to financial services or similar products (such as new types of variable annuities or legal forms) or advertising does not qualify as technological in nature.

Process of experimentation

The term process of experimentation means a process involving the evaluation of more than one alternative designed to achieve a result where the means of achieving that result is uncertain at the outset. This may involve developing one or more hypotheses, testing and analyzing those hypotheses (through, for example, modeling or simulation), and refining or discarding the hypotheses as part of a sequential design process to develop the overall component.

Thus, for example, costs of developing a new or improved business component are not eligible for the credit if the method of reaching the desired objective (the new or improved product characteristics) is readily discernible and applicable as of the beginning of the research activities, so that true experimentation in the scientific or laboratory sense would not have to be undertaken to develop, test, and

3. Research does not rely on the principles of computer science merely because a computer is employed. Research may be treated as undertaken to discover information that is technological in nature, however, if the research is intended to expand or refine existing principles of computer science.

choose among viable alternatives. On the other hand, costs of experiments undertaken by chemists or physicians in developing and testing a new drug are eligible for the credit because the researchers are engaged in scientific experimentation. Similarly, engineers who design a new computer system, or who design improved or new integrated circuits for use in computer or other electronic products, are engaged in qualified research because the design of those items is uncertain at the outset and can only be determined through a process of experimentation relating to specific design hypotheses and decisions as described above.

Functional purposes

Under the conference agreement, research is treated as conducted for a functional purpose only if it relates to a new or improved function, performance, reliability, or quality. (Activities undertaken to assure achievement of the intended function, performance, etc. of the business component after the beginning of commercial production of the component do not constitute qualified experimentation.) The conference agreement also provides that research relating to style, taste, cosmetic, or seasonal design factors is not treated as conducted for a functional purpose and hence is not eligible for the credit.

Application of tests

The term business component means a product, process, computer software, technique, formula, or invention that is to be held for sale, lease, or license, or is to be used by the taxpayer in a trade or business of a taxpayer. If the requirements described above are not met with respect to a product,

etc. but are met with respect to one or more elements thereof, the term business component means the most significant set of elements of such product, etc. with respect to which all requirements are met.

Thus, the requirements are applied first at the level of the entire product, etc. to be offered for sale, etc. by the taxpayer. If all aspects of such requirements are not met at that level, the test applies at the most significant subset of elements of the product, etc. This "shrinking back" of the product is to continue until either a subset of elements of the product that satisfies the requirements is reached, or the most basic element of the product is reached and such element fails to satisfy the test. Treasury regulations may prescribe rules for applying these rules where a research activity relates to more than one business component.

A plant process, machinery, or technique for commercial production of a business component is treated as a different component than the product being produced. Thus, research relating to the development of a new or improved production process is not eligible for the credit unless the definition of qualified research is met separately with respect to such production process research, without taking into account research relating to the development of the product.

Internal-use computer software

Under a specific rule in the conference agreement, research with respect to computer software that is developed by or for the benefit of the taxpayer primarily for the taxpayer's own internal use is eligible for the credit only if the software

is used in (1) qualified research (other than the development of the internal-use software itself) undertaken by the taxpayer, or (2) a production process that meets the requirements for the credit (e.g., where the taxpayer is developing robotics and software for the robotics for use in operating a manufacturing process, and the taxpayer's research costs of developing the robotics are eligible for the credit). Any other research activities with respect to internal-use software are ineligible for the credit except to the extent provided in Treasury regulations. Accordingly, the costs of developing software are not eligible for the credit where the software is used internally, for example, in general and administrative functions (such as payroll, bookkeeping, or personnel management) or in providing noncomputer services (such as accounting, consulting, or banking services), except to the extent permitted by Treasury regulations.

The conferees intend that these regulations will make the costs of new or improved internal-use software eligible for the credit only if the taxpayer can establish, in addition to satisfying the general requirements for credit eligibility, (1) that the software is innovative (as where the software results in a reduction in cost, or improvement in speed, that is substantial and economically significant); (2) that the software development involves significant economic risk (as where the taxpayer commits substantial resources to the development and also there is substantial uncertainty, because of technical risk, that such resources would be recovered within a reasonable period); and (3) that the software is not commercially available for use by the taxpayer (as where the software cannot be purchased, leased, or licensed and used for the intended purpose without modifications that

would satisfy the first two requirements just stated). The conferees intend that these regulations are to apply as of the effective date of the new specific rule relating to internal-use software; i.e., internal-use computer software costs that qualify under the three-part test set forth in this paragraph are eligible for the research credit even if incurred prior to issuance of such final regulations.

The specific rule in the conference agreement relating to internal-use computer software is not intended to apply to the development costs of a new or improved package of software and hardware developed together by the taxpayer as a single product, of which the software is an integral part, that is used directly by the taxpayer in providing technological services in its trade or business to customers. For example, the specific rule would not apply where a taxpayer develops together a new or improved high technology medical or industrial instrument containing software that processes and displays data received by the instrument, or where a telecommunications company develops a package of new or improved switching equipment plus software to operate the switches. In these cases, eligibility for the incremental research tax credit is to be determined by examining the combined hardware-software product as a single product, and thus the specific rule applicable to internal-use computer software would not apply to the combined hardware-software product.

In the case of computer software costs incurred in taxable years before the effective date for the new specific rule, the eligibility of such costs for the research credit is to be determined in the same manner as the eligibility of hardware

product costs. The conferees expect and have been assured by the Treasury Department that guidance to this effect is to be promulgated on an expedited basis.

Excluded activities

The conference agreement specifies that expenditures incurred in certain research, research-related, or nonresearch activities are excluded from eligibility for the credit, without reference to the requirements described above relating to technological information, process of experimentation, and functional purposes.

Post-research activities.—The conference agreement provides that activities with respect to a business component after the beginning of commercial production of the component cannot qualify as qualified research. Thus, no expenditures relating to a business component are eligible for the credit after the component has been developed to the point where it either meets the basic functional and economic requirements of the taxpayer for such component or is ready for commercial sale or use.[4] For example, the credit is not

4. The exclusion from credit-eligibility for activities with respect to a business component after the beginning of commercial production of the component does not preclude the costs of significant improvements in an existing product from eligibility for the credit. Thus, for example, the expenses of an automobile manufacturer in developing, through a process of experimentation, a significantly more efficient and reliable diesel fuel injector are eligible for the incremental research tax credit even though the research expenses are incurred during or after production by the manufacturer of

(Cont'd)

available for such expenditures as the costs of preproduction planning for a finished business component, "tooling-up" for production, trial production runs, "trouble-shooting" involving detecting faults in production equipment or processes, accumulation of data relating to production processes, and the cost of "debugging" product flaws.

By way of further illustration, the credit is not available for costs of additional clinical testing of a pharmaceutical product after the product is made commercially available to the general public. However, the clinical testing in the United States of a product prior to production for sale in this country, or clinical testing seeking to establish new functional uses, characteristics, indications, combinations, dosages, or delivery forms as improvements to an existing product, is eligible for the credit. Thus, research (e.g., body chemistry research) undertaken on a product approved for one specified indication to determine its effectiveness and safety for other potential indications is eligible for the credit. Similarly, testing a drug currently used to treat hypertension for a new anti-cancer application, and testing an antibiotic in combination with a steroid to determine its therapeutic value as a potential new anti-inflammatory drug, would be eligible for the credit.

Adaptation.—The conference agreement provides that adaptation of an existing business component to a particular

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(Cont'd)

automobile engines containing the existing (unimproved) diesel fuel injector. However, the costs of any activities of the automobile manufacturer with respect to the improved diesel fuel injector after the beginning of commercial production of the improved diesel fuel injector would not be eligible for the research credit.

requirement or customer's need is not eligible for the credit. Thus, for example, the costs of modifying an existing computer software item for a particular customer are not eligible for the credit. However, the mere fact that an item is intended for a specific customer does not disqualify otherwise qualified research costs of the item (assuming that the research is not funded by the customer).

Surveys, studies, etc.—The conference agreement provides that the credit is not available for the costs of efficiency surveys, activities (including studies) related to management functions or techniques, market research, market testing and development (including advertising or promotions), routine data collections, or routine or ordinary testing or inspection of materials or business items for quality control. Management functions and techniques include such items as preparation of financial data and analysis, development of employee training programs and management organization plans, and management-based changes in production processes (such as rearranging work stations on an assembly line).

Duplication.—The conference agreement provides that the credit does not apply to research related to the reproduction of an existing business component (in whole or in part) of another person from a physical examination of the component itself or from plans, blueprints, detailed specifications, or publicly available information with respect to such component. While such "reverse engineering" activities thus are not eligible for the credit, the exclusion for duplication does not apply merely because the taxpayer examines a competitor's product in developing a different

component through a process of otherwise qualified experimentation requiring the testing of viable alternatives and based on the knowledge gained from such tests.

Additional exclusions

As under present law, the conference agreement excludes from eligibility for the credit expenditures for research (1) that is conducted outside the United States; (2) in the social sciences (including economics, business management, and behavioral sciences), arts, or humanities; or (3) to the extent funded by any person (or governmental entity) other than the taxpayer, whether by grant, contract, or otherwise.

Effect on section 174 definition

No inference is intended from the rules in the conference agreement defining research for purposes of the incremental credit as to the scope of the term "research or experimental" for purposes of the section 174 expensing deduction.

d. Qualified expenditures

The conference agreement follows the House bill.

e. University basic research credit

The conference agreement is the same as the House bill and the Senate amendment, except that the university basic research credit provisions are effective for taxable years beginning after December 31, 1986.

Appendix D

f. Credit use limitation

The conference agreement follows the House bill and the Senate amendment.

g. Effective date

The extension of the credit is effective for taxable years ending after December 31, 1985. The credit will not apply to amounts paid or incurred after December 31, 1988. The modifications to the credit made by the conference agreement are effective for taxable years beginning after December 31, 1985,[5] except that the modifications relating to the university basic research credit are effective for taxable years beginning after December 31, 1986.

2. Augmented charitable deduction for certain donations of scientific equipment

Present Law

Under a special rule, corporations are allowed an augmented charitable deduction for donations of newly manufactured scientific equipment to a college or university for research use in the physical or biological sciences (sec. 170(e)(4)).

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5. In computing the research credit for taxable years beginning after December 31, 1985, base-period expenditures for taxable years beginning before January 1, 1986 are to be determined under the credit definition of qualified research that was applicable in such base-period years and are not to be redetermined under the definition of qualified research in the conference agreement.

Appendix D

House Bill

The House bill expands the category of eligible donees under the special rule in section 170(e)(4) to include certain tax-exempt scientific research organizations, effective for taxable years beginning after December 31, 1985.

Senate Amendment

No provision.

Conference Agreement

The conference agreement follows the House bill.

3. Tax credit for orphan drug clinical testing

Present Law

A 50-percent tax credit is allowed for expenditures incurred in clinical testing of certain drugs for rare diseases or conditions (sec. 28). Under present law, the credit will not apply to amounts paid or incurred after December 31, 1987.

House Bill

The House bill extends the tax credit for clinical testing of orphan drugs for one additional year (i.e., through December 31, 1988).

Appendix D

Senate Amendment

The Senate amendment makes permanent the orphan drug credit.

Conference Agreement

The conference agreement extends the orphan drug credit for three additional years (i.e., through December 31, 1990).

D. Rapid Amortization Provisions

1. Trademark and trade name expenditures

Present Law

Taxpayers may elect to amortize over a period of at least 60 months expenditures for the acquisition, protection, expansion, registration, or defense of a trademark or trade name, other than an expenditure which is part of the consideration for an existing trademark or trade name.

House Bill

The House bill repeals the election. Trademark and trade name expenditures are therefore generally capitalized and recovered on a disposition of the asset.

The provision is generally effective for expenditures paid or incurred on or after January 1, 1986.

However, present law applies to expenditures incurred: (1) pursuant to a written contract that was binding as of September 25, 1985; or (2) with respect to development, protection, expansion, registration or defense commenced as of September 25, 1985, if the lesser of $1 million or 5 percent of cost has been incurred or committed by that date; provided in each case the trademark or trade name is placed in service before January 1, 1988.

Senate Amendment

The Senate amendment is the same as the House bill. The Senate provision is generally effective for expenditures paid or incurred after December 31, 1986. However, present law applies to expenditures incurred: (1) pursuant to a written contract that was binding as of March 1, 1986; or (2) with respect to development, protection, expansion, registration or defense commenced as of March 1, 1986, if the lesser of $1 million or 5 percent of cost has been incurred or committed by the date, provided in each case the trademark or trade name is placed in service before January 1, 1988.

Conference Agreement

The conference agreement follows the Senate amendment.

2. Pollution control facilities

Present Law

Taxpayers may elect to amortize over a 60-month period the cost of a qualifying certified pollution control facility

used in connection with a plant that was in operation before 1976. To the extent that a pollution control facility has a useful life in excess of 15 years, a portion of the facility's cost is not eligible for 60-month amortization, but must be recovered through depreciation.

House Bill

The House bill repeals the election. Expenditures for pollution control facilities would therefore be recovered in accordance with the applicable depreciation schedules. The repeal is generally effective for expenditures paid or incurred on or after January 1, 1986.

However, present law applies to expenditures incurred: (1) pursuant to a written contract that was binding as of September 25, 1985; or (2) with respect to facilities, construction of which is commenced as of September 25, 1985, if the lesser of $1 million or 5 percent of cost has been incurred or committed by that date; provided in each case the facility is placed in service before January 1, 1988.

Senate Amendment

No provision.

Conference Agreement

The conference agreement follows the Senate amendment.

Appendix D

3. Qualified railroad grading and tunnel bores

Present Law

Domestic railroad common carriers may elect to amortize the cost of qualified railroad grading and tunnel bores over a 50 year period. "Qualified railroad grading and tunnel bores" include all land improvements (including tunneling) necessary to provide, construct, reconstruct, alter, protect, improve, replace, or restore a roadbed of right-of-way for railroad track.

House Bill

Under the House bill, the election is repealed. Expenditures for railroad grading and tunnel bores would therefore be capitalized and recovered on disposition of the asset.

In addition, special ACRS treatment is provided for a particular railroad disaster and involuntary conversion treatment of insurance proceeds in that case is specified.

The repeal of the election generally applies to expenses paid or incurred on or after January 1, 1986. However, present law continues to apply to expenditures incurred: (1) pursuant to a written contract that was binding as of September 25, 1985; or (2) with respect to construction, reconstruction, alteration, improvement, replacement or restoration commenced as of September 25, 1985, if the lesser of $1 million or 5 percent of cost has been incurred or committed by that date, provided in each case the improvements are placed in service before January 1, 1988.

APPENDIX E — MOTION TO AMEND OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT DATED JANUARY 17, 2003 AND FILED JANUARY 21, 2003

THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

No. 01-4222

ROBERT R EUSTACE, NICHOLAS E. EUSTACE, ESTATE OF THOMAS A. EUSTACE, et al.,

Petitioners-Appellants

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent-Appellee

MOTION TO AMEND OPINION

The Commissioner of Internal Revenue, appellee herein, through his counsel, respectfully moves this Court to amend the opinion issued in the above-captioned case on December 13, 2002, for the following reasons:

1. This case involves the interpretation of the scope of the I.R.C. § 41 credit for increasing research activities, and, in particular, the § 41(d)(1)(B)(i) "discovery" requirement and the § 41(d)(1)(C) "experimentation" requirement.

Appendix E

2. On December 13, 2002, this Court issued its opinion affirming the decision of the Tax Court in the above-entitled case. The opinion will be published at 312 F.3d 905. A copy of the slip opinion is attached hereto.

3. The following statement appears at page 4 of the slip opinion (emphasis added): "Section 41's predecessor was enacted in 1981, and § 41 has been on the books in its current form since 1986, but *the Internal Revenue Service has yet to promulgate the regulations that are important to this statutory design.*"

4. The above statement is not entirely accurate, because, as the appellants pointed out in their opening brief (at 22), the IRS did, in fact, promulgate final regulations under Section 41 addressing the § 41(d)(1)(B)(i) "discovery" requirement and the § 41(d)(1)(C) "experimentation" requirement. Those final regulations were published on January 3, 2001. By their terms, they are generally applicable only for expenditures paid or incurred on or after that date. T.D. 8930, 66 Fed. Reg. 280, 287, 295; 2001-1 C.B. 433, 440, 449. They do not apply to the instant case, because it only involves expenditures paid or incurred before the effective date of the final regulations. Thus, we did not rely on them in our brief or at oral argument in this case.

5. On March 5, 2001, the IRS published Notice 2001-19, 2001-10 I.R.B. 784, announcing that it would review the final regulations, and that —

> [u]pon completion of this review, the Treasury Department and the Service will announce

> changes to the regulations, if any, in the form of proposed regulations. In addition, T.D. 8930 will be revised so that the provisions of the regulations, including any changes to T.D. 8930, will be effective no earlier than the date when the completion of this review is announced, . . .

On December 26, 2001, the IRS issued proposed regulations with proposed amendments to the existing final regulations, 66 Fed. Reg. 66362. Those proposed regulations have not been finalized.

6. We respectfully suggest that the statement at page 4 of the slip opinion that "Section 41's predecessor was enacted in 1981, and § 41 has been on the books in its current form since 1986, but *the Internal Revenue Service has yet to promulgate the regulations that are important to this statutory design*" be changed to "Section 41's predecessor was enacted in 1981, and § 41 (with modifications not relevant here) has been on the books in its current form since 1986, *but for the years at issue, the Internal Revenue Service has yet to promulgate the regulations that are important to this statutory design.*"

Wherefore, the appellee moves that the opinion in this case be amended in the manner described above.

Appendix E

Respectfully submitted,

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Dated: This 17th day of January, 2003.

Supreme Court, U.S.
FILED
APR 30 2003

No. 02-1367

In the Supreme Court of the United States

ROBERT R. EUSTACE, ET AL., PETITIONERS

v.

COMMISSIONER OF INTERNAL REVENUE

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

BRIEF FOR THE RESPONDENT IN OPPOSITION

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10 pp

QUESTION PRESENTED

Whether the expenses that petitioners incurred in developing computer software for sale to customers qualify for the income tax credit provided for "qualified research expenses" under Section 41(a) of the Internal Revenue Code, 26 U.S.C. 41(a).

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In the Supreme Court of the United States

No. 02-1367

ROBERT R. EUSTACE, ET AL., PETITIONERS

v.

COMMISSIONER OF INTERNAL REVENUE

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

BRIEF FOR THE RESPONDENT IN OPPOSITION

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-6a) is reported at 312 F.3d 905. The opinion of the Tax Court (Pet. App. 7a-22a) is reported at 81 T.C.M. (CCH) 1370.

JURISDICTION

The judgment of the court of appeals was entered on December 13, 2002. On March 13, 2003, Justice Stevens extended the time within which to file a petition for a writ of certiorari to and including April 14, 2003. The petition was filed on March 13, 2003. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

1. Applied Systems, Inc., is a Subchapter S corporation that developed and improved software products for sale to independent insurance agencies during the years involved in this case (1990-1992). Pet. App. 1a, 10a-16a. Petitioners are the shareholders of that corporation. On their income tax returns for those years, petitioners claimed that the tax credit provided by Section 41(a) of the Internal Revenue Code for "qualified research expenses" applies to the software development expenses incurred by Applied Systems. 26 U.S.C. 41(a).[1] The Internal Revenue Service, however, determined that this research tax credit is not available for those software development expenses. Petitioners thereafter brought this suit in Tax Court to challenge the Commissioner's determination. Pet. App. 16a-17a.

2. The Tax Court agreed with the Commissioner that the research tax credit of Section 41(a) is not available on the facts of this case. Pet. App. 7a-22a. The court concluded that "qualified research" under this statute must be "research that is undertaken to discover information that goes beyond the current state of knowledge in the computer science field." *Id.* at 17a. No such research was undertaken by Applied Systems in developing the software programs involved in this case. *Id.* at 21a. The court also noted that the statute specifies that only research undertaken through a "process of experimentation" may qualify for the credit (26 U.S.C. 41(d)(1)(C)) and that "simply debugging a computer program" does not represent a "process of

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[1] The items of income and loss and the deductions and tax credits of a Subchapter S corporation generally flow through to its shareholders and are reported by the shareholders on their income tax returns. 26 U.S.C. 1366(a).

experimentation." Pet. App. 18a (quoting *United Stationers, Inc.* v. *United States*, 163 F.3d 440, 445 (7th Cir. 1998), cert. denied, 527 U.S. 1023 (1999)).

The court held that, on the record of this case (Pet. App. 21a):

> Petitioners fell woefully short of presenting sufficient evidence to establish, as required by section 41, that Applied Systems' activities met the requirements for the research credit. Applied Systems did not undertake research to discover information beyond the current state of knowledge in the computer science field. Nor did Applied Systems conduct a process of experimentation aimed at eliminating uncertainty about the technical ability to develop the software.

3. The court of appeals affirmed. Pet. App. 1a-6a. The court concluded that "[t]he evidence at trial in the Tax Court shows that Applied Systems engaged in normal software development" and that "[n]one of it was pioneering; all of it entailed variations on themes long used by other developers." *Id.* at 2a. For the reasons already twice articulated by that court in *Wicor, Inc.* v. *United States*, 263 F.3d 659 (7th Cir. 2001), and *United Stationers, Inc.* v. *United States*, 163 F.3d at 444-446, the court held here that the mere industrious development of software through a process of trial-and-error does not constitute "qualified research" under Section 41(a). Pet. App. 3a. The court of appeals also noted (*id.* at 4a-5a) that these routine software development activities would not constitute "qualified research" under the slightly different articulation of the same statutory standards in the decision of the Tenth Circuit in *Tax & Accounting Software Corp.* v. *United*

States, 301 F.3d 1254 (2002), petition for cert. pending, No. 02-1291.

ARGUMENT

The decision of the court of appeals is correct and does not conflict with any decision of this Court or any other court of appeals. Further review is therefore not warranted.

1. This case presents the same question presented in *Tax and Accounting Software Corporation* v. *United States*, No. 02-1291. For the reasons set forth in our brief in opposition to the petition for a writ of certiorari in that case, the petition in this case should also be denied.[2]

2. Petitioners seek to raise additional claims that were not presented in the *Tax and Accounting Software Corp.* case. In particular, petitioners assert (Pet. 13, 28-29) that they have unfairly been denied the benefit of proposed regulations issued by the Treasury for public comment on December 26, 2001. 66 Fed. Reg. 66,362. Those proposed regulations have not been adopted as final regulations and, of course, they remain subject to modification or withdrawal at any time before their final adoption. See *Telecom*USA, Inc.* v. *United States*, 192 F.3d 1068, 1080 (D.C. Cir. 1999), cert. denied, 529 U.S. 1123 (2000); *Teweleit* v. *Hartford Life & Accident Ins. Co.*, 43 F.3d 1005, 1009 (5th Cir. 1995); *In re Appletree Markets, Inc.*, 19 F.3d 969, 973 (5th Cir. 1994) ("proposed regulations are not entitled to judicial deference"); *Garvey, Inc.* v. *United States*, 726 F.2d 1569, 1571-1572 (Fed. Cir.), cert. denied, 469 U.S. 823 (1984). Moreover, petitioners cannot claim that they

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[2] We are providing to petitioners herewith a copy of the government's brief in opposition to the petition for a writ of certiorari in *Tax and Accounting Software Corp.*, No. 02-1291.

took any action in reliance on the proposed regulations, for the expenditures involved in this case were incurred many years before the proposed regulations were issued.[3]

3. Petitioners err in asserting (Pet. 20) that the decision in this case conflicts with the decision of the Tenth Circuit in *Tax and Accounting Software Corp.*, *supra*. As the court of appeals explained in this case, although the Tenth Circuit articulated slightly different standards in evaluating a claim of "qualified research" in the *Tax and Accounting Software Corp.* case, petitioners "cannot meet the[] definitions" of the statutory terms in that case "any more than" they can meet the standards applied by the Seventh Circuit in this case. Pet. App. 4a-5a. See note 3, *supra*.

The slightly different wording applied by these two circuits in their consistent rejection of identical claims for a "research" tax credit for software development expenses plainly would not alter or affect the result in any of the cases that have been brought in either circuit. The slightly different description of the statutory standards in these cases therefore does not warrant review by this Court. This Court "reviews judgments,

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[3] Petitioners also err in contending that the proposed regulations would "not replace any earlier ones" (Pet. 18). If the proposed regulations issued in December 2001 are at some point adopted, they would replace or amend the current final regulations, which were adopted after public notice and comment on January 3, 2001. T.D. 8930, 2001-1 C.B. 433, 440, 449. The final regulations adopted in January 2001 set forth an interpretation of the "discovery" test under Section 41(a) that is consistent with the interpretation applied by the court in this case (Pet. App. 3a)(the discovery must "expand or refine existing principles") and by the Tenth Circuit in *Tax and Accounting Software Corp.*, 301 F.3d at 1261 (the discovery must be of "something new or previously unknown").

not statements in opinions" (*Black* v. *Cutter Laboratories*, 351 U.S. 292, 297 (1956)) and does not "decide questions that cannot affect the rights of litigants in the case before them." *Lewis* v. *Continental Bank Corp.*, 494 U.S. 472, 477 (1990) (quoting *North Carolina* v. *Rice*, 404 U.S. 244, 246 (1971)).

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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Supreme Court, U.S.
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(3)

No. 02-1367

IN THE

Supreme Court of the United States

ROBERT R. AND ELSA M. EUSTACE; NICHOLAS E. EUSTACE; ESTATE OF THOMAS A. EUSTACE, DECEASED, VICKY EUSTACE, EXECUTOR; ESTATE OF THOMAS A. EUSTACE, DECEASED, VICKY EUSTACE, INDEPENDENT ADMINISTRATOR AND VICKY EUSTACE; MICHAEL T. EUSTACE; STEVEN A. AND MICHELLE L. DYE,

Petitioners,

v.

COMMISSIONER OF INTERNAL REVENUE,

Respondent.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

REPLY BRIEF

Dated: May 14, 2003

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The Petitioner seeks review to settle uncertainty and conflict over taxpayers' entitlement to R&D tax credits. There is no dispute that there are four criteria for entitlement to the tax credit, nor does the Government dispute the meaning or the Petitioner's satisfaction of two of the four criteria.[1] The Government disputes the meaning of the other two criteria — the "discovery" test and the "process of experimentation" test — even though these disputes, so far from showing otherwise, underscore the need for review. The Government further asserts that both this case and a separate Tenth Circuit case (*Tax and Accounting Software Corporation* ("*TAASC*"), also before the Court on a petition for certiorari, No. 02-1291) present the same issue and were correctly decided, even though both courts expressly stated that their decisions were in conflict — another powerful reason to grant review.

I. The Government's Dispute about the Tax Credit Criteria Underscores the Need for Review.

The Government's dispute of the meaning of the "discovery" and "process of experimentation" tests dramatizes the need for review. This is particularly true because the Government bases its interpretations on assertions that are at odds with the statute, its legislative history, and regulations (which, though not yet formally adopted, have been published with the IRS's express assurance that taxpayers may rely on them for all open returns, and that returns satisfying them will not be challenged).

1. Contrary to the Government's assertion, Applied Systems has never contended that satisfying the test for a research deduction under IRC § 174 automatically satisfies the four requirements of section 41(d). In addition to satisfying the section 174 requirement, the work at issue must also be for the purpose of discovering information that is technological in nature, directed toward the development of a new or improved business component, and achieved through a process of experimentation.

A. The "Discovery" Test.

The Government does not dispute that Applied Systems satisfied the "discovery" test as defined by the Treasury Department's proposed regulations. Its only response is that the regulations are only proposed and may be modified, and that if adopted they would replace existing regulations, which are different. Resp. Br. at 4-5 & n.3.

That response ignores the critical feature of the regulations. They are not ordinary "proposed" regulations. Congress itself joined the chorus of criticism of the Treasury Department's belatedly-issued January 2001 "final" regulations,[2] and in response, in February 2001 the Treasury Department suspended the "final" regulations and announced it would issue supplemental regulations.[3] Those proposed supplemental regulations, issued in December 2001, were accompanied by the Treasury Department's and IRS's assurance that taxpayers may rely on the proposed regulations for all open returns,

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2. 66 Fed. Reg. at 66,363 ("Treasury and the IRS have determined that the definition of qualified research set out in [the "final" regulations] does not fully address Congress' concerns regarding the importance of research activities to the U.S. economy.").

3. Notice 2001-19 provided that T.D. 8930, pursuant to which the "final" regulations were issued, would be revised and (except for the rules regarding internal use software, not applicable here) would not be effective earlier than the date when the review of the proposed regulations was complete. The proposed regulations, which were issued on December 26, 2001, remain under review. The "final" regulations, therefore, have been suspended and are not currently in effect. The Government is acutely aware of the tenuous nature of the "final" regulations, for it moved to correct the Seventh Circuit's description of them (*see* Petition at 28 and App. 53a-56a) — yet does not even discuss this issue in its Response.

from any date, and that any tax positions consistent with them would not be challenged. *See* 66 Fed. Reg. at 66,367:

> Notwithstanding this prospective effective date, Treasury and the IRS believe that these rules prescribe the proper treatment of the expenditures they address, and the IRS generally will not challenge return positions consistent with the proposed regulations. Therefore, taxpayers may rely on these proposed regulations until the date final regulations under § 1.41-4 are published in the Federal Register.

The interim "proposed" regulations represent the Government's expressly stated position concerning the credit, and it would be arbitrary and irrational for the Government to take a contrary position for litigation purposes.

The Government's corollary assertion, that the proposed regulations cannot apply because they would replace different, existing regulations (Resp. Br. at 5 n.3), is equally wrong. The statute itself has been a constant for nearly 20 years, so there has been no statutory change, but only an issue of a constant statute's meaning. Because the Treasury Department and IRS instructed taxpayers to follow and rely on the proposed regulations, the "proposed" regulations have already displaced the "final" regulations that were issued in January 2001.[4]

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4. Applied Systems also pointed to, among other things, the language of the legislative history of reenactments of the credit to confirm its interpretation of the original statute. The Government criticizes this reference as reliance on "post-enactment pronouncements by a later Congress as to what an earlier Congress intended." The IRS, however, relied on exactly the same reenactment

(Cont'd)

Because those "final" regulations were not yet in effect at the time the work at issue here was performed, and do not apply to open returns, they have absolutely no bearing on the issues before the Court. Even if the "discovery" test applied by the Seventh Circuit (that R&D work must "exceed, expand and refine the principles of computer science" to count as "discovery") were consistent with the January 2001 regulations, those regulations have been suspended, and the Seventh Circuit improperly refused to consider or apply the interim "proposed" regulations, the best indicator of true congressional intent.

B. The "Process of Experimentation" Test.

Regarding the "process of experimentation" test, the Government asserts that the tax credit is unavailable for mere "debugging" of software because "debugging" does not constitute "experimentation." This assertion not only misstates what software developers like Applied Systems actually do, but would deny tax credits for any software improvements, even though such improvements are plainly eligible under the statute.

The Government acknowledges, as did the Court of Appeals, that Applied Systems "developed and improved software products" for use by independent insurance agencies. Resp. Br. at 2 (citing Pet. App. 1a, 10a-16a). "Improving" software expressly qualifies for the Section 41 tax credit. The legislative history accompanying the first enactment of the credit provided that the development of "new or significantly

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(Cont'd)
history when promulgating the proposed regulations and directing that they apply to all open returns. 66 Fed. Reg. at 66,365 (citing the legislative history to the 1986 Act; the Tax and Trade Relief Extension Act of 1998, Public Law 105-277, 112 Stat. 2681-888; and the Tax Relief Extension Act of 1999, Public Law 106-170, 113 Stat. 1860, 1919).

improved computer software" was eligible for the credit. H.R. Rep. No. 97-201, at 114 (1981), 1981-2 C.B. 352, 360.

The Government nevertheless asserts that Applied Systems cannot meet the "process of experimentation" test, because "simply debugging a computer program" is not "experimentation." This assertion is founded on a mistaken conception of the nature of software development and improvement. Debugging is a critical but final task in the development of any software product. Software development begins with the identification of a program's ultimate function or purpose, and continues through the decomposition of that function into components, the creation of a chart of interactions between those components to define the structure of the program, and the embodiment of it all into a written language that the computer can read, all the while attempting to maximize the program's speed and efficiency, minimizing the complexity of operation, and taking into consideration other related factors, such as the memory constraints of the computer on which the program will be run. *Computer Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992). Applied Systems' improvement of its software during the tax years at issue was not merely the equivalent of proofreading and correcting typos, but (as the trial record showed) included significant new development (e.g., doubling the lines of code in the software), as well as substantive code testing.

Indeed, the Government's position would categorically deny tax credit treatment to software improvement — under the pejorative label "mere debugging" — even though software improvement is expressly comprehended in the statute.

II. Contrary to the Government's Assertions, the Circuits Expressly Conflict.

The Government denies there is any conflict between the Seventh and Tenth Circuits' articulations of the "discovery" test (despite their obvious differences and those courts' own acknowledgment of a frank conflict), because both courts "reached the same result" — taxpayers lose. *TAASC* Resp. Br. at 5. The Government brushes aside any conflict as "slightly different description[s] of the statutory standards" (Resp. Br. at 5), but in fact the conflict is stark and fundamental. The Tenth Circuit required that a taxpayer not only reach intended technical goals, but also discover information separate from the product itself. The Seventh Circuit flatly rejected that test, but required that a taxpayer's research "exceed, expand and refine the principles of computer science" and not be merely "industrious." *See* Petition at 20. Contrary to the Government's assertion in its briefs here and in *TAASC*, these formulations cannot both be "correct."

The contrary formulations leave taxpayers at sea. A taxpayer cannot know whether it must aim for the "separate" test of the Tenth Circuit or for the "scientific pioneering" test of the Seventh Circuit.

Beyond the conflict with each other, both of these tests conflict with the proposed regulations and legislative history. *See* Petition at 19-20 & n.10 (the requirement that qualified research be "undertaken for the purpose of discovering information which is technological in nature" was intended to distinguish technological research, which may qualify for the research credit, from non-technological research, which does not).

The Government's position, rather than showing legislative, regulatory, and judicial consistency, underscores the need for this Court's review. Congress did not intend that taxpayers would run litigation risk whenever they engage in R&D activity. Instead, Congress expected the Government to articulate clear standards that would apply to all taxpayers — as it has now done in the December 2001 proposed regulations. There is no sound basis for the Government's refusal to apply these regulations here, particularly when the Government has conceded that the regulations reflect the proper interpretation of a statute that has remained unchanged for nearly 20 years. Because of the Government's inconsistent regulatory and litigation positions, only this Court can guarantee that the R&D credit will be fairly and consistently applied.

CONCLUSION

For the reasons set forth above and in the Petition, the Petitioners respectfully request that the Court grant review.

Dated: May 14, 2003

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